Waterbody Data Sheet

waterbody bate	JIICCL										
Description											
Project Name:						Date:			Waterbody	Survey ID:	
Line 5 Relocation Proj	ect					2019-09-06			sasa004p		
State:		County/	Parish:			USGS Water	body Name:				
WI		Ashland	i			UNT to Gehi	man Creek				
Company:		Crew M	ember Init	tials:		Latitude:			Longitude:		
Enbridge		NTT/DG	SL			46.365579			-90.588129		
Survey Type:	✓ Centerl	ine	☐ Re-Rou	ute	□A	ccess Road	□Facility	□Other			
(check one)										1.045	
Waterbody Type: (check one)	☐ River		✓ Stream	1		Ditch	☐ Swale	☐ Canal		Other	
Water Appearance: (check one)	☐ No Wat	er	✓ Clear		□Τ	urbid	☐Sheen on Surface	□Surfac	e Scum	Algal Mats	□Other
Existing Condition a: (check one)	☐ Highly	Function	nal Stream	Y M	oderately	Functional S		Functionally	Impaired Str	eam	
Feature Description: (check one)	✓ Natural		☐ Artificia	al, man-ma	ade 🗆 N	Manipulated					
Flow Regime: (check one)	□ Ephem	eral	☐ Intermi	ittent	V F	Perennial	☐ Connect	ting			
Sinuosity within Survey Corridor: (check one)	☐ Straigh	t	✓ Meand	lering							
Description Notes:											
Measurements											
Depth of Water: 0.5	_ ft.	N/A□	Unknov	vn□ Wa	ter Edge	to Water Ed	ge: <u>6</u> ft.	N/A□	OHWM Wid	lth: <u>8</u> ft	
OHWM Indicator:	☑ CI	ear line	on bank	□Shelvi	ng	□Wrested ve	egetation	Scouring		□Water s	taining
(check all that apply)		nt, matte		□Wrack	line	☑ Litter and o	lebris	☑Abrupt plan change	t community	✓ ⊻ Soil cha change	racteristic
Dominant Substrate: (check all that apply)	□ Ве	drock	□ Воι	ulder	☑ Cobbl	e 🗹 G	iravel	☑ Sand	☐ Silt/ cla	ay 🗆 C	Organic
Observations											
Riparian Zone Preser	it: 🗹 Ye	es	<u> </u>	No							
Vegetation Layers: (check all that apply)	☑ Tr	ees	v 9	Saplings/S	hrubs	✓ Herbs					
Dominant Bank Vege	tation (list):									
Carex lasiocarpa, Equ	isetum arv	ense, Fr	axinus per	nnsylvanica	a, Oryzop	osis asperifoli	а.				
Aquatic Habitats (ex: s	•	-				•			ools, etc.):		
Flowing water present			ols providir	ng habitat t	for frogs,	fish species,	aquatic inver	tebrates.			
Aquatic Organisms C		list):									
Aquatic invertebrates,				d							
Disturbances (ex: live: ATV trail is present ald				ay, waste dis	scnarge pi	pes):					
	ong waters	ouy buil	к.								
Observation Notes:		F - !!		ا داداداد	_4						
Sandbars and gravel b	oeas prese	nt. ⊦alle	n trees and	a debris in	stream.						



sasa004p_E (across)



sasa004p_N (upstream)



sasa004p_S (downstream)

Survey Description	n										
Project Name:		Waterbo	ody Nam	ne:			W	aterbody ID:			Date:
Line 5 Relocation Project	t	Unname	d swale				sa	asw004			9/21/2019
State:	County:		(Company:			Crew N	Member Initials	:	Photos:	
WI	Ashland		١	WEST			ES/PS			DSCN74	35-37,40-43
Tract Number(s):			ı	Nearest Mile	post		l .	Associated W	etland	ID(s):	
WI-AS-255.000			3	35.0				wasw012f			
Survey Type: (check one)	⊠ C	Centerline	□Re-R	oute	□Ac	cess Road		□Other:			
Physical Attributes Stream Classification:											
(check one)	⊠E	phemeral	□Intern	nittent	□Pe	erennial					
Waterbody Type: (check one)	River	⊠ Stream	□ Ditc	h 🗆 (Canal	☐ Othe	er: beco	omes cobble sw	ale at v	wasw012	f outlet
OHWM		/ Indicator:									
Width: 4_ft.	(check a	ll that apply)		☐ Clear lir on bank	ie	□Shelvin	g	⊠Wrested vegetation		Scouring	g □Water staining
Height: 8in N/A□		⊠Bent, matted, vegetation	or missir	ng □Wra	ck line	⊠Litter ar debris	nd	□ Abrupt plant community cha		∃Soil cha	racteristic change
Width of Waterbody - T Bank to Top of Bank:	op of	Width of Water to Toe of Slope		oe of Slope		of Waterbo	ody - W	ater Edge to	Depth (Approx.,	of Water	r:
_ <u>4_</u> ft.			<u>4</u> ft.		N/A⊠		ft		N/A⊠	_	ft.
Sinuosity:		Water velocity:			Bank I	neight			Bank s	slope	
(check one) ☐ Straight		(Approx.)				Right:	Cim			Right	
		-	fps	5		Left:	6in			Left	<u>35</u> degrees t:
⊠Meanderir	ng	N/A⊠					<u>6in</u>				35 degrees
Qualitative Attribu	tes										
Water Appearance: (check one)	No water	□Clear	□Turbio	-	een urface	□Sui	rface	□Algal mats	□Othe	r:	
Substrate:	Bedrock	☐ Boulder □	☑ Cobble				□ Silt/ c		<u>с</u> П	Other:	
(check all that apply)				∃ □ Glav					C 🗆		
% of Substrate:	%	%	<u>75</u> %		_% _	%	-	_% <u>25</u> %	_	%	
Width of Riparian Zone	(ch	getative Layers: eck all that apply)			:	⊠ Sap	lings/Sh	rubs:	⊠ Her	rbs	
ft. N/A⊠		rg. DBH of Domi prox.)	nants:	<u>12</u> in.		<u>3</u>	<u>3</u> in.	_		_in.	
Dominant Bank Vegeta											
Acer saccharum, Fraxinu	ıs spp, Os	smunda claytonia									
Aquatic Habitats (ex: su	bmerged o	r emerged aquatic v	egetation	, overhanging	banks/ro	ots, leaf pac	ks, large	submerged wood	, riffles,	deep pool	s):
none											
Aquatic Organisms Ob	served (li	st):									
none											
T&E Species Observed	(list):										
none											
Disturbances (ex: livesto	ock access,	manure in waterboo	dy, waste	discharge pipe	es):						
none											
Waterbody is: (check one)	⊠ N	latural	☐ Artif	ficial, man-m	ade	☐ Manip	ulated				
Stream Quality ^a : (check one)	⊠⊦	ligh	□ Mod	derate	-	□ Low					

а	High Quality: Natural channel, natural vegetation extends at least one or two active channel widths on each side; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance by livestock or man.
	Moderate Quality: Altered channel evidenced by rip-rap; natural vegetation extends 1/3-1/2 of the active channel width on each side; filtering function or riparian vegetation only moderately compromised; banks moderately unstable; water color is cloudy, submerged objects covered with greenish film; moderate odor; minor barriers to fish movement; fair aquatic habitat; minimum disturbance by livestock or man.
	Low Quality: Channel is actively down cutting or widening; rip rap and channelization excessive; natural vegetation less than 1/3 of the active channel width on each side; lack of regeneration; filtering function severely compromised; banks unstable (eroding); water color is muddy and turbid; obvious pollutants (algal mats, surface scum, surface sheen); heavy odor; severe barriers to fish movement; little to no aquatic habitat; severe disturbance from livestock or man.
ı	Notes:
sa	sw004 contiguous with sasw012 in WI-AS-252.000
	Naterbody Sketch (Include north arrow, centerline, distance from centerline, data point location, survey boundary, and IDs of associated features)









Waterbody Data Sheet

Trato. Souy Batt	4 011000												
Description													
Project Name:						Da	ate:			Waterbod	y Surv	ey ID:	
Line 5 Relocation Pro	ect					20	019-09-11			sasa017e			
State:		County/	/Parish:			U	SGS Water	body Name	:				
WI		Ashland	t			U	NT to Mare	ngo River					
Company:		Crew M	ember Init	tials:		La	atitude:			Longitude) :		
Enbridge		NTT/DC	GL			46	6.432002			-90.88840)6		
Survey Type: (check one)	☑ Centerl	ine	☐ Re-Ro	ute		□Acc	ess Road	□Facility	□Othe	er			
Waterbody Type: (check one)	□ River		☐ Stream	1	[D ite	ch	☐ Swale	□ Car	nal	☐ Oth	er	
Water Appearance:	✓ No Wat	er	☐ Clear			∃Turl	bid	☐ Sheen or	n □Surf	ace Scum	□Alga	l Mats	Other
(check one) Existing Condition a: (check one)	☐ Highly	Function	nal Stream		Moderate	ely F	unctional S	Surface tream	Functional	ly Impaired S	tream		
Feature Description: (check one)	☐ Natural		Artificia	al, man-	-made [□ Ma	nipulated						
Flow Regime: (check one)	☑ Ephem	eral	☐ Interm	ittent		□ Pe	rennial	☐ Connec	ting				
Sinuosity within Survey Corridor: (check one)	☑ Straigh	t	☐ Meand	dering									
Measurements Depth of Water:	ft.	N/A 🗹	Unknov	wn 🗆 📗	Water Ed	ge to) Water Edç	je: ft.	N/A 🖭	OHWM W	idth:	4ft.	
OHWM Indicator: (check all that apply)	□ CI	ear line	on bank	□She	elving		Wrested ve	getation	□Scouring	·		Water stair	ning
		nt, matte ng vege		□Wra	ack line		Litter and d	ebris	☑ Abrupt plachange	ant communi		Soil charachange	teristic
Dominant Substrate: (check all that apply)	□ Ве	edrock	□ Во	ulder	☐ Col	bble	□G	ravel	☐ Sand	☐ Silt/ d	clay	⊻ Orga	anic
Observations													
Riparian Zone Preser	nt: 🗆 Ye	es	V 1	No									
Vegetation Layers:	☑ Tr	ees	Ø (Saplings	s/Shrubs		✓ Herbs						
Dominant Bank Vege Populus tremuloides,	tation <i>(list</i> Fraxinus p): ennsylva	anica, Salix	c petiola	aris, Care	x intu	umescens, i	Abies balsar	nea.				
Aquatic Habitats (ex: None.	submerged or	emerged a	quatic vegetat	tion, overh	nanging bank	s/roots	s, leaf packs, la	rge submerged v	vood, riffles, deep	pools, etc.):			
Aquatic Organisms (None.	Observed ((list):											
Disturbances (ex: live Large man-made berr	stock acces n. Abundai	s, manure nt fallen	in waterboot trees and o	dy, waste debris.	e discharge	e pipes	s):						
Observation Notes: No water present at ti	me of surv	∋у.											



sasa017e_E (downstream)



sasa017e_S (across)



sasa017e_W (upstream)

Waterbody Data Sheet

Waterbody Data Si	icci							
Description								
Project Name:				Date:			Waterbody S	urvey ID:
Line 5 Relocation Project				2019-09-11			sasa018e	
State:	County	/Parish:		USGS Wate	rbody Name	·		
WI	Ashlan	d		UNT to Mare	engo River			
Company:	Crew N	lember Initial	ls:	Latitude:			Longitude:	
Enbridge	MAL/N	TT/DGL		46.432047			-90.888502	
Survey Type:	enterline	☐ Re-Route		Access Road	□Facility	□Other		
Waterbody Type: ☐ Ri	iver	☐ Stream	V	Ditch	☐ Swale	☐ Canal		Other
Water Appearance: V N	o Water	☐ Clear]Turbid	☐Sheen on Surface	□Surfac	e Scum □A	lgal Mats □Other
Existing Condition ^a : H	ighly Functio	nal Stream	☐ Moderate	ely Functional S	tream [Functionally I	Impaired Strea	am
Feature Description: National	atural	☑ Artificial,	man-made 🗆	Manipulated				
Flow Regime: 🗹 E	phemeral	☐ Intermitte	ent 🗆	Perennial	☐ Connect	ting		
Sinuosity within Survey Corridor:	traight	☐ Meander	ing					
Artificial ditch feature within	forested dep	pression that li	ikely contains w	vater only after	rain events.			
Measurements								
Depth of Water:ft.	N/A ✓	Unknown	□ Water Edg	je to Water Ed	ge: ft.	N/A 🗹	OHWM Width	n: <u>4</u> ft.
OHWM Indicator:	☐ Clear line	on bank	□Shelving	□Wrested v	egetation	□Scouring		□Water staining
(check all that apply)	✓Bent, matt missing vege		□Wrack line	☑ Litter and o	debris	□Abrupt plan	t community	☐Soil characteristic change
Dominant Substrate: (check all that apply)	☐ Bedrock	☐ Bould	ler □ Cob	ble 🗆 G	Gravel	□ Sand	☑ Silt/ clay	□ Organic
Observations								
	□ Yes	☑ No						
Vegetation Layers:	✓ Trees	⊻ Sa _l	plings/Shrubs	☑ Herbs				
Dominant Bank Vegetation Banks dominated by Popul	n <i>(list)</i> : us tremuloide	es and Fraxinu	us nigra.					
Aquatic Habitats (ex: submer None.	ged or emerged a	aquatic vegetation	, overhanging banks	/roots, leaf packs, la	rge submerged w	ood, riffles, deep po	pols, etc.):	
Aquatic Organisms Obser None.	rved (list):							
Disturbances (ex: livestock Erosion.	access, manure	e in waterbody,	waste discharge	pipes):				
Observation Notes: Channel covered by leaves	and other de	ecaying mater	ial. No water pr	resent at time o	f survey.			



sasa018e_E (downstream)



sasa018e_N (across)



sasa018e_W (upstream)

Survey Description	n	\A/-4L	l NI				100	(-1bb-1D-			D-1
Project Name:	_	Waterb	•					aterbody ID:			Date:
Line 5 Relocation Projec	t	Unnam	ed, road	Iside foreste	d swal	е	sa	asw010			9/24/2019
State:	County:	,		Company:			Crew N	Member Initials	i:	Photos:	
WI	Ashland			WEST			ES/AS			7528	
Tract Number(s):				Nearest Mile	post			Associated W	etland	ID(s):	
WI-AS-245.000				33.9				none			
Survey Type: (check one)		Centerline	□Re-R	Route	⊠Ac	ccess Road		□Other:			
Physical Attributes	S										
Stream Classification: (check one)	□ E	Ephemeral	□Inter	mittent	□P€	erennial					
Waterbody Type: (check one)	River	☐ Stream	⊠ Dito	ch 🗆 (Canal	☐ Othe	er: eros	sional swale			
OHWM	OHWN	/ Indicator:									
Width:ft.		ll that apply)		☐ Clear lir on bank	ne	□Shelvin	g	□Wrested vegetation		Scouring	g □Water staining
Height: ft. N/A⊠		☐Bent, matted, vegetation	or missi	ing □Wra	ck line	□Litter ar debris	nd	☐ Abrupt plant community cha		Soil cha	racteristic change
Width of Waterbody - T Bank to Top of Bank:	op of	Width of Water to Toe of Slope	body - 1	Γoe of Slope		of Waterbe	ody - W	ater Edge to	Depth (Approx.,	of Wate	r:
<u>3</u> ft.			<u>3</u> ft.		N/A⊠	_	ft	·.	N/A⊠	=	ft.
Sinuosity:		Water velocity:				height			Bank s	slope	
(check one)		(Approx.)				Right:				Right	:
⊠Straight			fp:	s			0.5 ft.				45 degrees
□Meanderir	ng	N/A⊠				Left:	<u>0.5</u> ft.			Left	:: <u>45</u> degrees
Qualitative Attribu	tes										
Water Appearance:											
(check one)	No water	□Clear	□Turb	-	een urface	□Sui sc	rface :um	□Algal mats	□Othe	r:	
	Bedrock	☐ Boulder □	⊠ Cobbl	e 🗆 Grav	el [☐ Sand	⊠ Silt/ c	lay 🛭 Organi	с 🗆	Other:	
(check all that apply) % of Substrate:	%	%	<u>15</u> %		_% _	%		_%	% <u> </u>	%	
Width of Riparian Zone		egetative Layers eck all that apply)	:	□ Trees	:	□ Sap	lings/Sh	nrubs:	☐ Her	bs	
ft. N/A 🗆		rg. DBH of Domi	nants:		in.	_	-	n		_in.	
Dominant Bank Vegeta	tion (list):	· · ·									
Acer saccharum, Tilia ar	nericana,	Carex peduncula	ta								
Aquatic Habitats (ex: su	bmerged o	r emerged aquatic	vegetation	n, overhanging	banks/ro	oots, leaf pac	ks, large	submerged wood	l, riffles,	deep pool	s):
None											
Aquatic Organisms Ob	served (li	st):									
none											
T&E Species Observed	(list):										
none											
Disturbances (ex: livesto Located adjacent to two t			dy, waste	e discharge pipe	es):						
Waterbody is:											
(check one)	□ N	Natural	□ Art	ificial, man-m	ade		ulated				
Stream Quality ^a : (check one)	□⊦	ligh	□ Мо	derate		⊠ Low					

а	High Quality: Natural channel, natural vegetation extends at least one or two active channel widths on each side; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance by livestock or man.
	Moderate Quality: Altered channel evidenced by rip-rap; natural vegetation extends 1/3-1/2 of the active channel width on each side; filtering function or riparian vegetation only moderately compromised; banks moderately unstable; water color is cloudy, submerged objects covered with greenish film; moderate odor; minor barriers to fish movement; fair aquatic habitat; minimum disturbance by livestock or man.
	Low Quality: Channel is actively down cutting or widening; rip rap and channelization excessive; natural vegetation less than 1/3 of the active channel width on each side; lack of regeneration; filtering function severely compromised; banks unstable (eroding); water color is muddy and turbid; obvious pollutants (algal mats, surface scum, surface sheen); heavy odor; severe barriers to fish movement; little to no aquatic habitat; severe disturbance from livestock or man.
ı	Notes:
	ature is roadside drainage swale. Does not appear contiguous with other swales or streams in area. provides little habitat d hydrological function. No water, flow, or defined OHWM present.
١	Naterbody Sketch (Include north arrow, centerline, distance from centerline, data point location, survey boundary, and IDs of associated features)



Survey Description	n										
Project Name:			ody Name	:				laterbody ID:			Date:
Line 5 Relocation Projec	t	Gerhma	n Creek				sa	asw008			9/24/2019
State:	County:		Co	ompany:			Crew I	Member Initials	5 :	Photos:	
WI	Ashland		W	EST			ES/AS			7514, 75	520, 7521
Tract Number(s):			Ne	earest Mile	post			Associated W	etland	ID(s):	
WI-AS-245.000 and WI-	AS-247 00	00		3.9, 34	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			wasw014e		(0).	
Survey Type:	7.0 2 17.00		00	, 0 1				naono i io			
(check one)		Centerline	□Re-Rou	ute	⊠Ac	cess Road		□Other:			
Physical Attributes	s										
Stream Classification:											
(check one)	⊠ E	Ephemeral	□Intermi	ttent	⊔P€	erennial					
Waterbody Type: (check one)	River	⊠ Stream	☐ Ditch		Canal	☐ Othe	er: swa	le features			
OHWM		/ Indicator:									
Width:ft.	(check a	all that apply)		☐ Clear lin on bank	ie	□Shelvin	g	□Wrested vegetation		Scourin	g □Water staining
Height: ft. N/A⊠		☐Bent, matted, vegetation	or missing	j ⊟Wra	ck line	□Litter ar debris	nd	☐ Abrupt plant community cha		∃Soil cha	aracteristic change
Width of Waterbody - T Bank to Top of Bank:	op of	Width of Waterl to Toe of Slope		e of Slope		of Waterbe	ody - W	ater Edge to	Depth (Approx.	of Wate	r:
_ <u>4_</u> ft.			<u>5</u> ft.		N/A⊠	_	ft	1.	N/A⊠	-	ft.
Sinuosity:		Water velocity:			Bank I	height			Bank	slope	
(check one) ☐Straight		(Approx.)				Right:				Right	
			fps			Left:	<u>0.5</u> ft.			Lef	<u>45</u> degrees t:
⊠Meanderir	ng	N/A⊠					0.5 ft.				60 degrees
Qualitative Attribu	tes										
Water Appearance:	No water	□Clear	□Turbid	□Sh	een	□Sui	rface	□Algal	□Othe	r:	
				_	ırface		um	mats			
	Bedrock	☐ Boulder ☑	Cobble	☐ Grave	el [Sand	⊠ Silt/ c	clay 🗆 Organi	ic 🗆	Other:	
(check all that apply) % of Substrate:	%	%	<u>25</u> %		%	%	50 %	25 %		%	
_					_/0 _		00 /0	20 /0			
Width of Riparian Zone		egetative Layers: neck all that apply)		⊠ Trees		⊠ San	lings/Sh	aruba:	☐ Hei	rbe	
ft.	1	g. DBH of Domi	nants:	10 in.	•		iirigs/31 2_in.	iiubs.		in.	
N/A⊠		pprox.)									
Dominant Bank Vegeta	. ,				_						
Acer saccharum, Tilia ar	nericana,	Ulmus americana	, Carex pe	edunculata,	Dryopi	teris interm	edia				
Aquatic Habitats (ex: su	ıbmerged o	r emerged aquatic v	egetation, c	overhanging	banks/rc	oots, leaf pac	ks, large	submerged wood	l, riffles,	deep poo	ls):
none											
Aquatic Organisms Ob	served (li	st):									
none	·										
T&E Species Observed	l (list):										
none											
Disturbances (ex: livesto	ock access,	manure in waterboo	dy, waste di	scharge pipe	es):						
Flows under two track dir	t/gravel ro	ad through plastic	culverts.								
Waterbody is: (check one)	⊠ 1	Natural	☐ Artific	cial, man-m	ade	☐ Manip	ulated				
Stream Quality a:		High	⊠ Mode	erate		□Low					

а	High Quality: Natural channel, natural vegetation extends at least one or two active channel widths on each side; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance by livestock or man.
	Moderate Quality: Altered channel evidenced by rip-rap; natural vegetation extends 1/3-1/2 of the active channel width on each side; filtering function or riparian vegetation only moderately compromised; banks moderately unstable; water color is cloudy, submerged objects covered with greenish film; moderate odor; minor barriers to fish movement; fair aquatic habitat; minimum disturbance by livestock or man.
	Low Quality: Channel is actively down cutting or widening; rip rap and channelization excessive; natural vegetation less than 1/3 of the active channel width on each side; lack of regeneration; filtering function severely compromised; banks unstable (eroding); water color is muddy and turbid; obvious pollutants (algal mats, surface scum, surface sheen); heavy odor; severe barriers to fish movement; little to no aquatic habitat; severe disturbance from livestock or man.
ı	Notes:
No	flow, little aquatic habitat, little herbaceous layer
١	Naterbody Sketch (Include north arrow, centerline, distance from centerline, data point location, survey boundary, and IDs of associated features)









Survey Description	1										-
Project Name:			ody Name:					laterbody ID:			Date:
Line 5 Relocation Project		Unname	d roadsid	e ditch/er	osiona	l swale	sa	asw009			9/24/2019
State:	County:	,	Co	mpany:			Crew I	Member Initials	:	Photos:	
WI .	Ashland		WE	EST			ES,AS			7504,75	05
Tract Number(s):			Ne	arest Mile	post			Associated W	etland	I ID(s):	
WI-AS-245.000			34					wasw014e			
Survey Type:											
(check one)		Centerline	□Re-Rou	te	⊠Ac	cess Road		□Other:			
Physical Attributes											
Stream Classification: (check one)		phemeral	□Intermit	tent	□Pe	erennial					
Waterbody Type:											
	River	☐ Stream	□ Ditch		Canal	☐ Othe	er: eros	sional swale fea	ture		
OHWM Width:		/ Indicator:	[☐ Clear lin	0	□Shelvin	a	□Wrested	Г	Scourin	a □Water
ft.	(41124112			on bank	l C	_ Sileiviii	9	vegetation		Jocouiiii	staining
Height:		☐Bent, matted,	or missing	□Wrad	ck line	□Litter ar	nd	☐ Abrupt plant		∃Soil cha	aracteristic change
ft. N/A⊠		vegetation	Ü			debris		community cha			9
Width of Waterbody - To	pp of	Width of Waterl	oody - Toe	of Slope	Width	of Waterb	ody - W	ater Edge to		of Wate	r:
Bank to Top of Bank:		to Toe of Slope	:		Water	Edge:			(Approx.)	
<u>4</u> ft.		_	<u>4</u> ft.				ft	i.	NI/A 🖂	=	ft.
Sinuosity:		Water velocity:			N/A⊠ Bank I	neight			N/A⊠ Bank :	elono	
(check one)		(Approx.)			Dankı	Right:			Dalik :	Righ	t:
⊠Straight			fps			•	<u>1</u> ft.			ŭ	90 degrees
□Meanderin	g	N/A⊠				Left:	1 ft.			Lef	t: 90 degrees
Qualitative Attribut	00										-
Water Appearance:	.E2										
	No water	□Clear	□Turbid	□Sh on su	een ırface	□Sui so	rface cum	□Algal mats	□Othe	er:	
	Bedrock	☐ Boulder ☐	Cobble	⊠ Grave	el 🗆	Sand [⊠ Silt/ c	lay 🛭 Organi	с 🗆	Other:	
(check all that apply) % of Substrate:	%	%	%	20 %		%	35 %	45 %		%	
Width of Riparian Zone:		getative Layers: eck all that apply)		⊠ Trees	:	⊠ Sap	lings/Sh	nrubs:	⊠ Hei	rbs	
ft. N/A⊠		g. DBH of Domii	nants:	<u>10</u> in.			2_in.	_		_in.	
Dominant Bank Vegetat		prox.)									
Acer saccharum, Tilia am	, ,		;								
Aquatic Habitats (ex: sub	omerged o	r emerged aquatic v	egetation, o	verhanging l	banks/ro	ots, leaf pac	ks, large	submerged wood	, riffles,	deep poo	ls):
none											
Aquatic Organisms Obs	erved (li	st):									
none											
T&E Species Observed	(list):										
none											
Disturbances (ex: livesto	ck access,	manure in waterboo	dy, waste dis	scharge pipe	es):						
Erosion, off road vehicle u			-	5 , 1 -	•						
Waterbody is: (check one)		latural	☐ Artific	ial, man-m	ade	⊠ Manip	ulated				
Stream Quality ^a : (check one)			□ Mode			⊠low					

а	High Quality: Natural channel, natural vegetation extends at least one or two active channel widths on each side; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance by livestock or man.
	Moderate Quality: Altered channel evidenced by rip-rap; natural vegetation extends 1/3-1/2 of the active channel width on each side; filtering function or riparian vegetation only moderately compromised; banks moderately unstable; water color is cloudy, submerged objects covered with greenish film; moderate odor; minor barriers to fish movement; fair aquatic habitat; minimum disturbance by livestock or man.
	Low Quality: Channel is actively down cutting or widening; rip rap and channelization excessive; natural vegetation less than 1/3 of the active channel width on each side; lack of regeneration; filtering function severely compromised; banks unstable (eroding); water color is muddy and turbid; obvious pollutants (algal mats, surface scum, surface sheen); heavy odor; severe barriers to fish movement; little to no aquatic habitat; severe disturbance from livestock or man.
	Notes:
Fe	ature is roadside ditch/erosional swale within two track access rd. No water, flow, or defined OHWM present
١	Naterbody Sketch (Include north arrow, centerline, distance from centerline, data point location, survey boundary, and IDs of associated features)





APPENDIX F

Waterbody Data Sheets
Part 20 of 24

Survey Description											
Project Name:		Waterb	ody Nar	ne:			W	aterbody ID:			Date:
Line 5 Relocation Project		Unnam	ed erosi	ional swale			sa	asw007			9/24/2019
State:	County:			Company:			Crew N	Member Initials	:	Photos:	
WI	Ashland			WEST			ES/AS			7503,750	06, 7507
Tract Number(s):				Nearest Mile	epost		ı.	Associated W	etland	ID(s):	
WI-AS-245.000				34				wasw014e			
Survey Type: (check one)	□ Ce	enterline	□Re-F	Route	⊠Ac	cess Road		□Other:			
Physical Attributes	;										
Stream Classification: (check one)		phemeral	□Inter	mittent	□Pe	rennial					
Waterbody Type: (check one)	River	☐ Stream	□ Dito	ch 🗆 (Canal	☐ Othe	er: eros	ional road featu	re from	n washou	t
OHWM	OHWM	Indicator:									
Width:ft.	(check all	that apply)		☐ Clear lir on bank	ne	□Shelvin	g	□Wrested vegetation]Scourino	g □Water staining
Height: ft. N/A⊠		☐Bent, matted, vegetation	or miss	ing □Wra	ck line	□Litter ar debris	nd	□ Abrupt plant community cha		∃Soil cha	racteristic change
Width of Waterbody - To	op of	Width of Water	hody -	Toe of Slone	Width	of Waterb	odv - W	ater Edge to	Depth	of Water	:
Bank to Top of Bank:		to Toe of Slope	e:	. со от оторо	Water		,	. g	(Approx.,		
ft.			ft				ft			_	ft.
-					N/A□				N/A□		
Sinuosity: (check one)		Water velocity: (Approx.)	:		Bank h	•			Bank s	•	
Straight		, , ,	fp	\$		Right:	ft.			Right	: 90 degrees
□Meanderin	a		'P	o .		Left:				Left	:
		N/A⊠					<u>2</u> ft.				90_degrees
Qualitative Attribut	es										
Water Appearance: (check one)	No water	□Clear	□Turb	-	ieen urface	□Sui so	rface :um	□Algal I	□Othe	r:	
Substrate:	Bedrock	☐ Boulder □	⊠ Cobbl	e 🗵 Grav	el 🗆	Sand	⊠ Silt/ c	lay 🗆 Organi	c 🗆	Other:	
(check all that apply) % of Substrate:	%	%	<u>10</u> %	<u>15</u> %	_	%	<u>85</u> %	9	6 <u> </u>	%	
Width of Riparian Zone:	Veg	getative Layers	:								
ft.		ck all that apply)		□ Trees	:	☐ Sap	lings/Sh	rubs:	☐ Her	bs	
it. N/A⊠	-	g. DBH of Domi orox.)	ınants:		in.	_	iı	n		_in.	
Dominant Bank Vegetat	ion (list):										
Acer saccharum, Ulmus a	americana										
Aquatic Habitats (ex: sub	omerged or	emerged aquatic	vegetation	n, overhanging	banks/ro	ots, leaf pac	ks, large	submerged wood	, riffles,	deep pool	s):
none											
Aquatic Organisms Obs	erved (lis	t):									
none											
T&E Species Observed	(list):										
none											
Disturbances (ex: livestoo	ck access, r	manure in waterbo	dy, waste	discharge pipe	es):						
Erosion, washout, soil con			-								
Waterbody is: (check one)	N:	atural	☐ Art	ificial, man-m	ade	⊠ Manip	ulated				
Stream Quality ^a :	□ Hi			derate		⊠ Low					

а	High Quality: Natural channel, natural vegetation extends at least one or two active channel widths on each side; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance by livestock or man.
	Moderate Quality: Altered channel evidenced by rip-rap; natural vegetation extends 1/3-1/2 of the active channel width on each side; filtering function or riparian vegetation only moderately compromised; banks moderately unstable; water color is cloudy, submerged objects covered with greenish film; moderate odor; minor barriers to fish movement; fair aquatic habitat; minimum disturbance by livestock or man.
	Low Quality: Channel is actively down cutting or widening; rip rap and channelization excessive; natural vegetation less than 1/3 of the active channel width on each side; lack of regeneration; filtering function severely compromised; banks unstable (eroding); water color is muddy and turbid; obvious pollutants (algal mats, surface scum, surface sheen); heavy odor; severe barriers to fish movement; little to no aquatic habitat; severe disturbance from livestock or man.
ı	Notes:
Fe	ature is an erosional swale as a result of a washed out two-track access rd.
,	Naterbody Sketch (Include north arrow, centerline, distance from centerline, data point location, survey boundary, and IDs of associated features)





Survey Description	1								
Project Name:		Waterbody	Name:		W	/aterbody ID:		Date:	
Line 5 Relocation Project Unna			Unnamed stream					9/30/19	
State: County:			Company: Cro			Member Initials	: Photos:		
WI	Ashland		WEST		ES AS		7705, 77	16, 7720	
Tract Number(s):			Nearest Mile	epost		Associated W	etland ID(s):		
WI-AS-252.000, WI-AS-2	252.001		34.9			wasw027f, v	vasw012f		
Survey Type: (check one)	⊠ Cen	terline	Re-Route	⊠Access Road		□Other:			
Physical Attributes	3								
Stream Classification: (check one)		omorol 🗆	ntormittant	□ Doronniol					
,	⊠ Eph	emerai 🗀 i	ntermittent	□Perennial					
Waterbody Type: (check one)	River D	⊠ Stream □	Ditch 🗆 0	Canal ⊠ Othe	er: swa	le s side, stream	n north of rd		
OHWM	OHWM In								
Width: 2ft.	(check all tha	ат арріу)	☐ Clear lir on bank	ne □Shelvinç	9	⊠Wrested vegetation	□Scouring	g ⊠Water staining	
Height: 2in		Bent, matted, or negetation	nissing □Wra	ck line □Litter ar debris	nd	☐ Abrupt plant community cha		racteristic change	
N/A□ Width of Waterbody - To	op of Wi	idth of Waterbod	y - Toe of Slope	Width of Waterbo	ody - W	ater Edge to	Depth of Water	··	
Bank to Top of Bank:		Toe of Slope:		Water Edge:		_	(Approx.)		
<u>4</u> ft.		4	ft.	_	<u>2</u> f1		N1/A 🗔	<u>3 in</u> ft.	
Sinuosity:	W	ater velocity:		N/A□ Bank height			N/A□ Bank slope		
(check one)		oprox.)		Right:			Right	:	
□Straight		0.1	fps	_	4in	ft.		degrees	
⊠Meanderin	g N/	′A□		Left:	1in	_ft.	Left	:: <u>30</u> degrees	
Qualitative Attribut	tes								
Water Appearance:					_				
(check one)	No water	⊠Clear □	「urbid □Sh on sเ		face um	□Algal [mats	□Other:		
	Bedrock [☐ Boulder ☐ C	obble Grav	el 🗆 Sand 🗆	□ Silt/ c	clay 🛭 Organio	C ☐ Other:		
(check all that apply) % of Substrate:	%	<u></u> %	<u>10 </u> % <u> </u> %	%	6	<u>60 </u>	_%%		
Width of Riparian Zone	: Veget	tative Layers:							
ft.	(check	all that apply)	□ Trees	: □ Sapl	ings/Sł	nrubs:	☐ Herbs		
it. N/A⊠	Avg. (approx	DBH of Dominan	ts: <u>12</u>	in	3	_in	<u>0.5</u> in.		
Dominant Bank Vegetat	tion (list):								
Carex scapata, Acer sac	charum, Frax	kinus spp, Betula a	alleghaniensis						
Aquatic Habitats (ex: su	bmerged or em	nerged aquatic vege	ation, overhanging	banks/roots, leaf pacl	ks, large	submerged wood,	, riffles, deep pool	s):	
Leaf packs present, riffles	s, woody deb	oris in stream							
T&E Species Observed	(list):								
Disturbances (ex: livesto	ck access, ma	nure in waterbody, v	vaste discharge pipe	es):					
Two track dirt access road flow to stream on the sout			verts under the ro	ad. only one pipe h	as flow	ing water, other l	blocked by sedir	ment. Roadside ditches	
Waterbody is: (check one)	⊠ Natu	ural	Artificial, man-m	ade 🗆 Manipu	ulated				
Stream Quality ^a : (check one)	☐ High	n 🗵	Moderate	□ Low					

а	High Quality: Natural channel, natural vegetation extends at least one or two active channel widths on each side; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance by livestock or man.
	Moderate Quality: Altered channel evidenced by rip-rap; natural vegetation extends 1/3-1/2 of the active channel width on each side; filtering function or riparian vegetation only moderately compromised; banks moderately unstable; water color is cloudy, submerged objects covered with greenish film; moderate odor; minor barriers to fish movement; fair aquatic habitat; minimum disturbance by livestock or man.
	Low Quality: Channel is actively down cutting or widening; rip rap and channelization excessive; natural vegetation less than 1/3 of the active channel width on each side; lack of regeneration; filtering function severely compromised; banks unstable (eroding); water color is muddy and turbid; obvious pollutants (algal mats, surface scum, surface sheen); heavy odor; severe barriers to fish movement; little to no aquatic habitat; severe disturbance from livestock or man.
ı	Notes:
St	ream contiguous with sasw004 north of parcel in WI-AS-255.000
,	Naterbody Sketch (Include north arrow, centerline, distance from centerline, data point location, survey boundary, and IDs of associated features)
	Waterbody Sketch (include noun arrow, centenine, distance noin centenine, data point location, survey boundary, and ibs or associated features)







Survey Description	n										
Project Name:		Waterbody Name:					W	aterbody ID:		Date:	
Line 5 Relocation Project Unnamed swale			d swale			sasw004					9/21/2019
State:	County:		(Company:			Crew N	Member Initials	:	Photos:	
			WEST ES/PS			DSCN			35-37,40-43		
Tract Number(s):			ı	Nearest Mile	post		ı.	Associated W	etland	ID(s):	
WI-AS-255.000			3	35.0				wasw012f			
Survey Type: (check one)	⊠ C	Centerline	□Re-R	oute	□Ac	cess Road		□Other:			
Physical Attributes Stream Classification:											
(check one)	⊠E	phemeral	□Intern	nittent	□Pe	erennial					
Waterbody Type: (check one)	River	⊠ Stream	□ Ditc	h 🗆 (Canal	☐ Othe	er: beco	omes cobble sw	ale at v	wasw012	f outlet
OHWM		/ Indicator:									
Width: 4_ft.	(check a	ll that apply)		☐ Clear lir on bank	ie	□Shelvin	g	⊠Wrested vegetation		Scouring	g □Water staining
Height: 8in N/A□		⊠Bent, matted, vegetation	or missir	ng □Wra	ck line	⊠Litter ar debris	nd	□ Abrupt plant community cha		∃Soil cha	racteristic change
Width of Waterbody - T Bank to Top of Bank:	op of	Width of Water to Toe of Slope		oe of Slope		of Waterbo	ody - W	ater Edge to	Depth (Approx.,	of Water	r:
_ <u>4_</u> ft.			<u>4</u> ft.		N/A⊠		ft		N/A⊠	_	ft.
Sinuosity:		Water velocity:			Bank I	neight			Bank s	slope	
(check one) ☐ Straight		(Approx.)				Right:				Right:	
		-	fps	5		Left:	6in			Left	<u>35</u> degrees t:
⊠Meanderir	ng	N/A⊠					<u>6in</u>				35 degrees
Qualitative Attribu	tes										
Water Appearance: (check one)	No water	□Clear	□Turbio	-	een ırface	□Sui	rface	□Algal mats	□Othe	r:	
Substrate:	Bedrock	☐ Boulder □	☑ Cobble				□ Silt/ c		<u>с</u> П	Other:	
(check all that apply)				∃ □ Glav					C 🗆		
% of Substrate:	%	%	<u>75</u> %		_% _	%	-	_% <u>25</u> %	_	%	
Width of Riparian Zone	(ch	getative Layers: eck all that apply)			:	⊠ Sap	lings/Sh	rubs:	⊠ Her	rbs	
ft. N/A⊠		rg. DBH of Domi prox.)	nants:	<u>12</u> in.		<u>3</u>	<u>3</u> in.	_		_in.	
Dominant Bank Vegeta											
Acer saccharum, Fraxinu	ıs spp, Os	smunda claytonia									
Aquatic Habitats (ex: su	bmerged o	r emerged aquatic v	egetation	, overhanging	banks/ro	ots, leaf pac	ks, large	submerged wood	, riffles,	deep pool	s):
none											
Aquatic Organisms Ob	served (li	st):									
none											
T&E Species Observed	(list):										
none											
Disturbances (ex: livesto	ock access,	manure in waterboo	dy, waste	discharge pipe	es):						
none											
Waterbody is: (check one)	⊠ N	latural	☐ Artif	ficial, man-m	ade	☐ Manip	ulated				
Stream Quality ^a : (check one)	⊠⊦	ligh	□ Mod	derate	-	□ Low					

а	High Quality: Natural channel, natural vegetation extends at least one or two active channel widths on each side; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance by livestock or man.
	Moderate Quality: Altered channel evidenced by rip-rap; natural vegetation extends 1/3-1/2 of the active channel width on each side; filtering function or riparian vegetation only moderately compromised; banks moderately unstable; water color is cloudy, submerged objects covered with greenish film; moderate odor; minor barriers to fish movement; fair aquatic habitat; minimum disturbance by livestock or man.
	Low Quality: Channel is actively down cutting or widening; rip rap and channelization excessive; natural vegetation less than 1/3 of the active channel width on each side; lack of regeneration; filtering function severely compromised; banks unstable (eroding); water color is muddy and turbid; obvious pollutants (algal mats, surface scum, surface sheen); heavy odor; severe barriers to fish movement; little to no aquatic habitat; severe disturbance from livestock or man.
ı	Notes:
sa	sw004 contiguous with sasw012 in WI-AS-252.000
	Martine de Objetat (s. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.
	Naterbody Sketch (Include north arrow, centerline, distance from centerline, data point location, survey boundary, and IDs of associated features)









Linear Waterbody Data Sheet

Survey De		1	110					l l l	/		-	N-4
Project Name				aterbody Na					aterbody ID:			Oate:
Line 5 Reloca	ition Projec		Ca	amp Four Cre	ек				nsw005)/21/2019
State:		County:			Company:				Member Initials		Photos:	
WI		Ashland			WEST			ES/PS			20190921	_110203-11858, 7464
Tract Numbe	er(s):				Nearest Mile	epost			Associated Wetland ID(s):			
WI-AS-255.00					35.05	35.05			wasw013ss			
Survey Type (check one)	:	⊠ C	enterline	□Re-l	Route	□Ad	ccess Road		□Other:			
Physical A	Attributes	5										
Stream Class (check one)	sification:		phemeral	⊠Inter	rmittent	□Pe	erennial					
Waterbody T (check one)		River	⊠ Stream	m □ Dit	ch 🗆	Canal	☐ Othe	ər:				
OHWM Width:	<u>6_</u> ft.		I Indicator	:	☐ Clear lii on bank	ne	⊠Shelvin	g	□Wrested vegetation		Scouring	□Water staining
Height: N/A□	<u>10in.</u>		⊠Bent, m vegetation	atted, or miss	sing □Wra	ck line	□Litter au debris	nd	☐ Abrupt plant community cha		∃Soil chara	acteristic change
Width of Wat Bank to Top		op of	Width of to Toe of		Toe of Slope		of Waterb Edge:	ody - W	ater Edge to	Depth (Approx.	of Water:	
	<u>12</u> ft.			<u>12</u> ft.		N/A□		<u>6</u> ft.		N/A□		<u>1</u> ft.
Sinuosity:			Water vel	ocity:			height			Bank s	slope	
(check one)	Straight		(Approx.)				Right:				Right:	
				<u>0.2</u> fps			Left:	<u>2</u> ft.			Left:	_75_degrees
Σ	Meanderir	ng	N/A□				•	2.5 ft.				90_degrees
Qualitative		tes										
Water Appea (check one)	irance:	No water	⊠Cle	ar □Turb		neen urface	□Su so	rface cum	□Algal mats	□Othe	er:	
Substrate: (check all that app % of Substra	oly)	Bedrock %	☐ Bould			el [☐ Sand □	⊠ Silt/ c	,	ic 🗆	Other:	
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	_			<u>% 5</u> %	<u>25</u> %	_	70	<u>60</u> %	<u>10</u> %		70	
Width of Rip	arian Zone		getative La	,			⊠ San	lings/Sh	ırııhe.	⊠ Her	rhs	
	ft.		•	Dominants:	<u>10</u> in.	·•		in. 2_in.	_	<u> </u>	_in.	
N/A⊠ Dominant Ba	nk Vegeta		prox.)									
Phalaris arun	_		a									
Aquatic Habi	itats (ex: su	bmerged or	emerged a	quatic vegetatio	n, overhanging	banks/ro	oots, leaf pac	ks, large	submerged wood	d, riffles,	deep pools):
Overhanging	Alnus, ove	rhanging b	ank, roots;	deep pools,	riffles and run	s						
Aquatic Orga	anisms Ob	served (lis	st):									
T&E Species	Observed	(list):										
Disturbances none	s (ex: livesto	ock access,	manure in w	raterbody, wast	e discharge pip	es):						
Waterbody is (check one)		⊠N	latural	□ Ar	tificial, man-m	ade	☐ Manip	ulated				
Stream Qual (check one)	ity ^a :	⊠ H	ligh	□ Мо	oderate		□ Low					

а	High Quality: Natural channel, natural vegetation extends at least one or two active channel widths on each side; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance by livestock or man.
	Moderate Quality: Altered channel evidenced by rip-rap; natural vegetation extends 1/3-1/2 of the active channel width on each side; filtering function or riparian vegetation only moderately compromised; banks moderately unstable; water color is cloudy, submerged objects covered with greenish film; moderate odor; minor barriers to fish movement; fair aquatic habitat; minimum disturbance by livestock or man.
	Low Quality: Channel is actively down cutting or widening; rip rap and channelization excessive; natural vegetation less than 1/3 of the active channel width on each side; lack of regeneration; filtering function severely compromised; banks unstable (eroding); water color is muddy and turbid; obvious pollutants (algal mats, surface scum, surface sheen); heavy odor; severe barriers to fish movement; little to no aquatic habitat; severe disturbance from livestock or man.
ı	Notes:
Se	gment of camp four creek through corridor. Stream flows through forested and scrub shrub habitat
1	Naterbody Sketch (Include north arrow, centerline, distance from centerline, data point location, survey boundary, and IDs of associated features)

Waterbody ID: swasw005









Linear Waterbody Data Sheet

Survey Description	n	lane a										
Project Name:		Waterb	ody Nan	ne:		Waterbody ID:					Date:	
Line 5 Relocation Projec	t	Unname	ed swale	tributary to c	amp fo	ur creek	sa	asw006			9/23/2019	
State:	County:			Company:			Crew I	Member Initials	s:	Photos:		
WI	Ashland			WEST			ES/PS			2019092	3_140047, 140114,	
	, tornaria						20/10				0_140047, 140114,	
Tract Number(s):				Nearest Mile	post			Associated W	etland	l ID(s):		
WI-AS-255.000				35.1				wasw012f				
Survey Type:												
(check one)	<u> </u>	Centerline	□Re-R	loute	⊔Ac	cess Road		□Other:				
Physical Attributes	s											
Stream Classification: (check one)	M E	Ephemeral	□Inter	mittent	ПРа	erennial						
,		-priemerai		Tilltoni		remia						
Waterbody Type: (check one)	1Diver	□ Ctue em	□ D:44	.L 🗆 (Sanal			ata d avvala				
(crieck one)	River	☐ Stream	☐ Ditc	n ⊔ C	Canal	⊠ Otne	er: iore	sted swale				
OHWM		/ Indicator:										
Width: _1_ft.	(check a	all that apply)		☐ Clear lir on bank	ne	□Shelvin	g	□Wrested vegetation		ີ່Scourinឲ	g □Water staining	
Height:		☐Bent, matted,	or missi	ng □Wra	g □Wrack line ⊠Litter a			☐Abrupt plant		∃Soil cha	il characteristic change	
4in N/A□		vegetation				debris		community cha	ange			
Width of Waterbody - T	op of	Width of Water	bodv - 1	Toe of Slope	Width	of Waterbo	ody - W	ater Edge to	Depth	of Water	:	
Bank to Top of Bank:	•	to Toe of Slope	:			Edge:	•	•	(Approx.	.)		
_ <u>3_</u> ft.			3 ft.				1 ft.				1in	
<u></u>					N/A□	•			N/A□			
Sinuosity:		Water velocity:			Bank I	height			Bank :	slope		
(check one) ☐ Straight		(Approx.)				Right:				Right		
		-	<u>0</u> fps			Left:	<u>0.5</u> ft.			Left	_ <u>90_</u> degrees	
⊠Meanderir	ng	N/A⊠					0.75 ft			Len	90 degrees	
0 114 41 444 11												
Qualitative Attribu	tes											
Water Appearance: (check one)	No water	□Clear	□Turbi	-	een urface	⊠Sui so	rface cum	□Algal mats	□Othe	er: puddle	es	
Substrate:	Bedrock	☐ Boulder [☐ Cobbl	e 🗆 Grav	el [☐ Sand [□ Silt/ c	clay 🛭 Organi	ic \sqcap	Other:		
(check all that apply)								, ,				
% of Substrate:	%	%		%	_% _	%		% <u>100</u> %	_	%		
Width of Riparian Zone	: Ve	getative Layers										
4	l'	neck all that apply)			:	⊠ Sap	lings/Sh	nrubs:	⊠ He	rbs		
ft. N/A⊠		/g. DBH of Domi oprox.)	nants:	<u>10</u> in.		<u>.3</u>	<u>3</u> in.	_		_in.		
Dominant Bank Vegeta												
Ulmus americana, Fraxii	(/		n aiaant	ea Carev hr	nmoide	e e						
Aquatic Habitats (ex: su	ıbmerged o	r emerged aquatic v	egetation/	n, overhanging	banks/rc	oots, leaf pac	ks, large	submerged wood	l, riffles,	deep pool	s):	
Tussocks, leaf litter												
Aquatic Organisms Ob	served (li	st):										
none												
T&E Species Observed	l (list):											
Disturbance			d	dia dia di	\							
Disturbances (ex: livesto	ock access,	manure in waterbo	uy, waste	alscharge pipe	es):							
none												
Waterbody is: (check one)	⊠ N	Natural	☐ Arti	ificial, man-m	ade	☐ Manip	ulated					
Stream Quality a:												
(check one)	□H	High	⊠ Mo	derate		☐ Low						

а	High Quality: Natural channel, natural vegetation extends at least one or two active channel widths on each side; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance by livestock or man.
	Moderate Quality: Altered channel evidenced by rip-rap; natural vegetation extends 1/3-1/2 of the active channel width on each side; filtering function or riparian vegetation only moderately compromised; banks moderately unstable; water color is cloudy, submerged objects covered with greenish film; moderate odor; minor barriers to fish movement; fair aquatic habitat; minimum disturbance by livestock or man.
	Low Quality: Channel is actively down cutting or widening; rip rap and channelization excessive; natural vegetation less than 1/3 of the active channel width on each side; lack of regeneration; filtering function severely compromised; banks unstable (eroding); water color is muddy and turbid; obvious pollutants (algal mats, surface scum, surface sheen); heavy odor; severe barriers to fish movement; little to no aquatic habitat; severe disturbance from livestock or man.
ı	Notes:
St	ream is a forested swale with minimal water or flow. Provides minimal habitat, some hydrology functions
,	Naterbody Sketch (Include north arrow, centerline, distance from centerline, data point location, survey boundary, and IDs of associated features)

Waterbody ID: sasw006





Linear Waterbody Data Sheet

Survey Description	1										
Project Name:		Waterb	ody Nam	e:			W	aterbody ID:			Date:
Line 5 Relocation Project	t	Camp F	our Cree	k			sa	sw003			9/20/2019
State:	County:		C	Company:			Crew N	Member Initials	S :	Photos:	
WI	Ashland		V	VEST			ES/PC			2019092	0_123114, 7416
Tract Number(s):			N	learest Mile	post		1	Associated W	etland	ID(s):	
WI-AS-256.000			3	5.1				wasw009e,	wasw	010f, w	asw011f
Survey Type: (check one)	ПС	enterline	□Re-Ro	oute	⊠Ac	cess Road		□Other:			
,											
Physical Attributes Stream Classification:											
(check one)	□E	phemeral	⊠Interm	ittent	⊔Pe	rennial					
Waterbody Type: (check one)	River	⊠ Stream	☐ Ditch	n 🗆 0	Canal	☐ Othe	er:				
OHWM	OHWM	I Indicator:									
Width: 4_ft.	(check al	l that apply)		☐ Clear lin on bank	ie	□Shelvin	g	□Wrested vegetation		Scouring	g ⊠Water staining
Height:		☐Bent, matted, vegetation	or missin	g □Wra	ck line	⊠Litter ar debris	nd	☐ Abrupt plant community cha		∃Soil cha	racteristic change
Width of Waterbody - T Bank to Top of Bank:		Width of Water to Toe of Slope		oe of Slope	Width Water		ody - W	ater Edge to	Depth (Approx.)	of Water	:
_ <u>4_</u> ft.			<u>4</u> ft.		N/A⊠		ft		N/A□		<u>0.3</u> ft.
Sinuosity:		Water velocity:			Bank h	neight			Bank s	slope	
(check one) ☐ Straight		(Approx.)				Right:	40'			Right	
		_().25_fps			Left:	<u>10in</u>			Left	70 degrees
⊠Meanderin	ng	N/A□					<u>10in</u>				70 degrees
Qualitative Attribut	tes										
Water Appearance: (check one)	No water	⊠Clear	□Turbio	_	een ırface	□Sui	rface	□Algal mats	□Othe	r:	
Substrate:	Bedrock	☐ Boulder □		☐ Grave	el 🗆	Sand D	⊠ Silt/ c	lay ⊠ Organi	ic 🗆	Other:	
(check all that apply) % of Substrate:	%	%	<u>75</u> %		%	%	15 %	,		%	
Width of Binarian Zana				-			<u></u> /0	<u></u> ,			
Width of Riparian Zone		getative Layers eck all that apply)			:	⊠ Sap	lings/Sh	rubs:	⊠ Her	bs	
ft. N/A 🗆		g. DBH of Domi	nants:	<u>10</u> in.			<u>2</u> in.	_		_in.	
Dominant Bank Vegeta		JIOX.)									
Betula alleganiensis, Gly	ceria stria	ta, Carex intume	scens, Ca	arex bromoio	des						
Aquatic Habitats (ex: su	bmerged or	emerged aquatic v	egetation,	overhanging	banks/ro	ots, leaf pac	ks, large	submerged wood	l, riffles,	deep pools	s):
Riffles and runs present,	cobble wi	th leaf packs									
Aquatic Organisms Obs	served (lis	st):									
None											
T&E Species Observed	(list):										
Disturbances (ex: livesto	ock access,	manure in waterbo	dy, waste o	discharge pipe	es):						
Waterbody is: (check one)	⊠ N	atural	☐ Artif	icial, man-m	ade	☐ Manip	ulated				
Stream Quality ^a : (check one)	⊠ H		□ Mod			□ Low					

Moderate Quality: Altered channel evidenced by rip-rap; natural vegetation extends 1/3-1/2 of the active channel width on each side; filtering function or riparian vegetation only moderately compromised; banks moderately unstable; water color is cloudy, submerged objects covered with greenish film; moderate odor; minor barriers to fish movement; fair aquatic habitat; minimum disturbance by livestock or man.
Low Quality: Channel is actively down cutting or widening; rip rap and channelization excessive; natural vegetation less than 1/3 of the active channel width on each side; lack of regeneration; filtering function severely compromised; banks unstable (eroding); water color is muddy and turbid; obvious pollutants (algal mats, surface scum, surface sheen); heavy odor; severe barriers to fish movement; little to no aquatic habitat; severe disturbance from livestock or man.
Notes:
Camp four creek
Waterbody Sketch (Include north arrow, centerline, distance from centerline, data point location, survey boundary, and IDs of associated features)

High Quality: Natural channel, natural vegetation extends at least one or two active channel widths on each side; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance by livestock or man.

Waterbody ID: Sasw003





Waterbody Date	a Silect										
Description											
Project Name:						Date:			Waterbod	y Survey ID:	
Line 5 Relocation Pro	ject					2019-10-08			sirb015e		
State:		County/l	Parish:			USGS Wate	rbody Name	: :			
WI		Iron				None					
Company:		Crew Me	ember Init	ials:		Latitude:			Longitude) :	
Enbridge		NTT/SA	M			46.381234			-90.54882	21	
Survey Type: (check one)	☑ Centerle	ine	☐ Re-Ro	ute		Access Road	□Facility	□Other			
Waterbody Type:	☐ River		☐ Stream	1		Ditch	☐ Swale	☐ Canal		☐ Other	
Water Appearance: (check one)	✓ No War	ter	☐ Clear		□Т	Turbid	☐Sheen on	□Surfac	e Scum	□Algal Mats	□Other
Existing Condition ^a : (check one)	□ Highly	Function	al Stream	□Мо	oderately	y Functional S	Surface stream	Functionally	Impaired S	tream	
Feature Description:	☐ Natural		✓ Artificia	al, man-ma	de 🗆 l	Manipulated					
Flow Regime: (check one)	E Ephem	eral	☐ Interm	ittent		Perennial	☐ Connec	ting			
Sinuosity within Survey Corridor: (check one)	☑ Straigh	t	☐ Meand	lering			Swale				
The waterbody is a ro	adside ditc	h that is	adjacent t	o a gravel r	oad.						
Measurements											
Depth of Water:	ft.	N/A 🗹	Unknov	vn□ Wat	er Edge	to Water Ed	ge: ft.	N/A 🗹	OHWM W	idth: <u>1</u>	ft.
OHWM Indicator:	□ CI	ear line o	on bank	□Shelvir	ng	□Wrested v	egetation	Scouring		□Water	staining
(check all that apply)		nt, matte ing veget		□Wrack	line	□Litter and	debris	□Abrupt plan change	t communi	ty □Soil ch change	naracteristic
Dominant Substrate: (check all that apply)	□Ве	edrock	□ Во	ulder	□ Cobb	le 🗹 🤇	Gravel	 Sand	☐ Silt/ d	clay 🗆	Organic
Observations											
Riparian Zone Preser (check one)	nt: 🗆 Ye	es	I	No							
Vegetation Layers: (check all that apply)	□ Tr	ees	v :	Saplings/Sh	nrubs	☑ Herbs					
Dominant Bank Vege Eurybia macrophylla,	etation <i>(list</i> Phalaris ar): undinace	ea, Poa pra	atensis, Pte	eridium a	aquilinum, Sc	rpus cyperinu	us. Adjacent to	a mesic ha	ardwood syste	em.
Aquatic Habitats (ex: None.	submerged or	emerged ac	quatic vegetat	tion, overhangi	ng banks/ro	oots, leaf packs, la	irge submerged v	wood, riffles, deep po	ools, etc.):		
Aquatic Organisms (None.	Observed ((list):									
Disturbances (ex: live Artificial in origin.	stock acces	s, manure	in waterboo	dy, waste dis	charge pi	ipes):					
Observation Notes: Feature continues out	side the su	ırvey corı	ridor.								



sirb015e_E (across)



sirb015e_N (upstream)



sirb015e_S (downstream)

Waterbody Data Si	icci							
Description								
Project Name:				Date:			Waterbody S	urvey ID:
Line 5 Relocation Project				2019-09-21			sirb010p	
State:	County	//Parish:		USGS Wate	body Name:			
WI	Iron			UNT to Feld	cher Creek			
Company:	Crew N	lember Initial	s:	Latitude:			Longitude:	
Enbridge	MAL/S	AM		46.383586			-90.548099	
Survey Type:	enterline	☐ Re-Route	;	Access Road	□Facility	□Other		
Waterbody Type: ☐ R	iver	✓ Stream		Ditch	☐ Swale	☐ Canal		Other
Water Appearance: (check one)	o Water	☑ Clear		Turbid	☐Sheen on Surface	□Surfac	e Scum □A	lgal Mats □Other
Existing Condition ^a : H	lighly Functio	nal Stream	✓ Moderatel	y Functional S		Functionally	Impaired Strea	ım
Feature Description: V Na (check one)	atural	☐ Artificial, ı	man-made 🗆	Manipulated				
Flow Regime:	phemeral	☐ Intermitte	ent 🗹	Perennial	☐ Connect Swale	ing		
Sinuosity within Survey Corridor:	traight	✓ Meander	ing					
Measurements								
Depth of Water: 1 ft.	N/A□	Unknown	□ Water Edge	e to Water Ed	ge: 2 ft.	N/A□	OHWM Width	: <u>5</u> ft.
OHWM Indicator: (check all that apply)	☐ Clear line	on bank	□Shelving	☑ Wrested v	egetation	 Scouring		□Water staining
	☑Bent, matt missing veget		□Wrack line	☑ Litter and o	lebris	□Abrupt plan change	t community	☐Soil characteristic change
Dominant Substrate: (check all that apply)	☐ Bedrock	☐ Bould	er 🗹 Cobb	ole 🗹 🤆	iravel	□ Sand	坚 Silt/ clay	□ Organic
Observations								
Riparian Zone Present: (check one)	☑ Yes	□ No						
Vegetation Layers: (check all that apply)	☑ Trees	☑ Sap	olings/Shrubs	✓ Herbs				
Dominant Bank Vegetation The banks include Fraxinus Athyrium filix-femina, Carex	s nigrá, Ulmu	-		n, and Tilia am	ericana. The	herbaceous lay	er contains O	smunda claytoniana,
Aquatic Habitats (ex: submer Shallow running water as w				roots, leaf packs, la	rge submerged w	ood, riffles, deep po	ools, etc.):	
Aquatic Organisms Obser Water striders.	ved (list):							
Disturbances (ex: livestock The feature experiences er			waste discharge p	pipes):				
Observation Notes: The waterbody continues o	ut of the blac	k ash swamp	to sirb009p whic	ch is adjacent	to an unpave	d road.		



sirb010p_E (upstream)



sirb010p_SW (across)

Water body Data Si	1001							
Description								
Project Name:				Date:			Waterbody Su	ırvey ID:
Line 5 Relocation Project				2019-09	9-20		sirb009p	
State:	Coun	ty/Parish:		USGS V	Vaterbody Nam	e :		
WI	Iron			None				
Company:	Crew	Member Init	ials:	Latitude):		Longitude:	
Enbridge	MAL/	SAM		46.3845			-90.548507	
Survey Type: (check one)	enterline	☐ Re-Rou	ıte	✓ Access R	oad □Facility	□Other		
Waterbody Type: ☐ R	liver	☐ Stream	l	☐ Ditch	✓ Swale	☐ Cana		Other
Water Appearance: ☐ N (check one)	o Water	☑ Clear		□Turbid	□Sheen o Surface	e Scum □Al	gal Mats □Other	
Existing Condition ^a :	lighly Funct	ional Stream	✓ Modera	tely Functio		☐ Functionally	Impaired Strea	m
Feature Description: ☐ N	latural	☐ Artificia	I, man-made	Manipula	ted			
Flow Regime:	phemeral	☐ Intermi	ttent	✓ Perennia	l □ Conne Swale	cting		
Sinuosity within Survey Corridor:	traight	✓ Meand	ering					
The feature is a swale runr	шід О-іч ра	and to an un	paved Toad. It c		indo rop outside	the survey com	301.	
Measurements								
Depth of Water:1 ft.	N/A	Unknow	_{/n□} Water E	dge to Wate	r Edge: 1f	t. N/A□	OHWM Width	: <u>3</u> ft.
OHWM Indicator: (check all that apply)	☐ Clear lir	ne on bank	Shelving	☑Wrest	ed vegetation	☑ Scouring		□Water staining
(onotical that apply)	☑Bent, ma missing ve		□Wrack line	Ľ Litter	and debris	□Abrupt plan	t community	☐Soil characteristic change
Dominant Substrate: (check all that apply)	☐ Bedrock	C □ Bou	ulder 🗹 Co	obble	☑ Gravel	☑ Sand	坚 Silt/ clay	□ Organic
Observations								
Riparian Zone Present:	☐ Yes	<u>r</u> 1	lo					
Vegetation Layers: (check all that apply)	✓ Trees	V S	Saplings/Shrubs	ĭ I H	erbs			
Dominant Bank Vegetatio Acer saccharum, Ulmus ar	n <i>(list)</i> : nericana, A	thyrium filix-fe	emina, Tilia ame	ericana.				
Aquatic Habitats (ex: subme Small pools of water disper	rged or emerge rsed througl	d aquatic vegetati nout swale as	on, overhanging bar well as portion	nks/roots, leaf pa s of running	cks, large submerged water.	wood, riffles, deep p	ools, etc.):	
Aquatic Organisms Observogs, water striders.	rved (list):							
Disturbances (ex: livestock Erosion along the banks ex	access, man cposing tree	ure in waterbod roots. Runof	y, waste discharg f from roadway.	e pipes):				
Observation Notes: Portions of the waterbody s	susceptible	to erosion; ba	anks heavily inc	ised at point	s.			



sirb009p_E (across)



sirb009p_N (downstream)



sirb009p_S (upstream)

APPENDIX F

Waterbody Data Sheets
Part 21 of 24

Waterbody Data C	лесс									
Description										
Project Name:						Date:			Waterbody S	urvey ID:
Line 5 Relocation Project						2019-09-20			sirb008e	
State:		County/l	Parish:			USGS Water	body Name			
WI		Iron				UNT to Felde	her Creek			
Company:		Crew Me	ember Ini	tials:		Latitude:			Longitude:	
Enbridge		MAL/SA	M			46.384876			-90.546659	
Survey Type:	Centerl	ine	☐ Re-Ro	ute	□A	Access Road	□Facility	□Other		
Waterbody Type:	River		☐ Stream	n		Ditch	✓ Swale	☐ Canal		Other
Water Appearance: 🗹	No Wat	er	☐ Clear		□Т	urbid	☐Sheen on Surface	□Surfac	e Scum □A	lgal Mats □Other
Existing Condition ^a :	Highly	Function	al Stream	V N	/loderately	Functional S		☐ Functionally	Impaired Strea	am
Feature Description:	Natural		Artificia	al, man-m	ade 🗆 l	Manipulated				
Flow Regime: (check one)	Ephem	eral	☐ Interm	ittent		Perennial	☐ Connect	ting		
Sinuosity within Survey Corridor: (check one)	Straigh	t	✓ Meano	dering						
Vegetated ephemeral sw	aic ruiii	iiig para	IIICI (E-VV)	to an orr	v road arr	a the margin (i a mosio na	irawood forest.		
Measurements										
Depth of Water:f	t.	N/A 	Unknov	wn 🗆 🛮 Wa	ater Edge	to Water Ed	je: ft.	N/A 🗹	OHWM Width	n: <u>2</u> ft.
OHWM Indicator: (check all that apply)	□ CI	ear line o	on bank	□Shelv	/ing	☑ Wrested ve	getation	□Scouring		□Water staining
(orodical und apply)		nt, matte ng veget		□Wrac	k line	☑ Litter and o	ebris	□Abrupt plan change	t community	☐Soil characteristic change
Dominant Substrate: (check all that apply)	□В€	drock	□ Во	ulder	☑ Cobbl	le 🗹 G	ravel	☐ Sand	⊻ Silt/ clay	☐ Organic
Observations										
Riparian Zone Present: (check one)	□Ye	es	<u> </u>	No						
Vegetation Layers: (check all that apply)	☑ Tr	ees	Ø :	Saplings/S	Shrubs	✓ Herbs				
Dominant Bank Vegetat Acer saccharum, Ulmus a	ion (list america): na, Dryo	pteris inte	rmedia.						
Aquatic Habitats (ex: subr None.			quatic vegeta	tion, overhan	nging banks/ro	oots, leaf packs, la	rge submerged w	vood, riffles, deep po	ools, etc.):	
Aquatic Organisms Obs None.	erved (list):								
Disturbances (ex: livestor Disturbances include the	ck access OHV tr	s, manure ail.	in waterboo	dy, waste d	lischarge pi	pes):				
Observation Notes: There is no standing water	er at the	time of	survey.							



sirb008e_E (upstream)



sirb008e_S (across)



sirb008e_W (downstream)

Trator Sour Batt	4 011000												
Description													
Project Name:							Date:			Waterbo	dy Su	rvey ID:	
Line 5 Relocation Pro	ect						2019-09-19			sirb006e	•		
State:		County	/Parish:				USGS Wate	rbody Name	e :				
WI		Iron					UNT to Feld	cher Creek					
Company:		Crew M	lember Ini	itials:			Latitude:			Longitu	de:		
Enbridge		MAL/SA	AM				46.386100			-90.543	567		
Survey Type: (check one)	☐ Centerl	ine	☐ Re-Ro	oute		V A	ccess Road	□Facility	□Othe	er			
Waterbody Type: (check one)	□ River		☐ Stream	n			Ditch	✓ Swale	☐ Car	nal	ΠО	ther	
Water Appearance:	✓ No Wat	ter	☐ Clear			□Т	urbid	☐ Sheen o	n □Surf	ace Scum	□Al	gal Mats	□Other
(check one) Existing Condition a: (check one)	□ Highly	Function	nal Stream	n 🗆	Modera	itely	Functional S	Surface stream	Functional	ly Impaired	Strea	m	
Feature Description: (check one)	☐ Natural		☐ Artifici	al, man	-made		Manipulated						
Flow Regime: (check one)	☑ Ephem	eral	☐ Interm	nittent		□ F	Perennial	☐ Connec	cting				
Sinuosity within Survey Corridor: (check one)	☐ Straigh	t	✓ Mean	dering									
Measurements	£ı	NI/A FE	Linkno		Water Fe	dae	to Water Ed	ne: ff	· Ν/Δ [6	Z OHWM I	Width	- 2 ft	
Depth of Water:	ft.	N/A 🗹	Unkno	wn⊔	water E	age	to water Ed	ge: ft	N/A <u>□</u>	OHWM	wiatn	: <u>2</u> ft.	
OHWM Indicator: (check all that apply)	□ CI	ear line	on bank	□Sh	elving		□Wrested v	egetation	Scouring			□Water sta	aining
		nt, matte		□Wr	ack line		☑ Litter and	debris	□Abrupt pl change	ant commu	nity	□Soil char change	racteristic
Dominant Substrate: (check all that apply)	□ Ве	edrock	□Во	oulder	☑ Co	obbl	le v (Gravel	□ Sand	☑ Silt	/ clay	□ O	rganic
Observations													
Riparian Zone Preser	nt: 🗆 Ye	es	ď	No									
Vegetation Layers: (check all that apply)	☑ Tr	ees	V	Sapling	s/Shrubs	;	✓ Herbs						
Dominant Bank Vege The feature runs throu Fraxinus nigra.	etation (list ugh the ma	rgin of a	ı mesic ha	rdwood	forest. D	omi	inant bank ve	getation incl	udes Athyriur	n filix-femin	a, Ace	er saccharur	m, and
Aquatic Habitats (ex: None.	submerged or	emerged a	aquatic vegeta	ation, overl	hanging ban	nks/ro	oots, leaf packs, la	rge submerged	wood, riffles, deep	pools, etc.):			
Aquatic Organisms (None.													
Disturbances (ex: live None.	stock acces	s, manure	e in waterbo	ody, wast	e discharg	e pip	pes):						
Observation Notes: There is no water pres	sent at the	time of	survey.										



sirb006e_E (downstream)



sirb006e_N (across)



sirb006e_W (upstream)

Trate: Beay Bat	4 011000									
Description										
Project Name:						Date:			Waterbody Su	ırvey ID:
Line 5 Relocation Pro	ject					2019-09-19			sirb007e	
State:		County/	Parish:			USGS Wate	rbody Name	:		
WI		Iron				None				
Company:		Crew M	ember Init	ials:		Latitude:			Longitude:	
Enbridge		MAL/SA	٨M		ļ	46.387401			-90.540222	
Survey Type: (check one)	☐ Centerl	ine	☐ Re-Ro	ute	ØA	Access Road	□Facility	□Other		
Waterbody Type: (check one)	□ River		☐ Stream	1		Ditch	✓ Swale	☐ Canal		Other
Water Appearance: (check one)	✓ No War	ter	☐ Clear		□Т	urbid	☐Sheen or Surface	n □Surfac	e Scum □Al	gal Mats □Other
Existing Condition ^a : (check one)			nal Stream	□ Mo	derately	/ Functional S		Functionally	Impaired Strea	m
Feature Description: (check one)				al, man-mad		Manipulated				
Flow Regime: (check one)	☑ Ephem	eral	☐ Interm	ittent	□ F	Perennial	☐ Connec Swale	ting		
Sinuosity within Survey Corridor: (check one)	□ Straigh	it	✓ Meand	lering						
Measurements										
Depth of Water:	ft.	N/A 🗹	Unknov	vn□ Wate	er Edge	to Water Ed	ge: ft.	N/A 🗹	OHWM Width	:1ft.
OHWM Indicator:	□ Cl	ear line	on bank	□Shelving	g	☑ Wrested v	egetation	Scouring		□Water staining
(check all that apply)	⊻ Be miss	ent, matte ing veget	ed, or tation	□Wrack li	ine	☑ Litter and	debris	□Abrupt plan change	t community	□Soil characteristic change
Dominant Substrate: (check all that apply)	□ Ве	edrock	□ Во	ulder 🗉	☑ Cobbl	le 🗆 C	Gravel	□ Sand	坚 Silt/ clay	☐ Organic
Observations										
Riparian Zone Preser	nt: 🗆 Ye	s	V 1	No						
Vegetation Layers: (check all that apply)	☑ Tr	ees	V (Saplings/Sh	rubs	✓ Herbs				
Dominant Bank Vege The swale runs throug	etation (list gh a mesic): hardwoc	od forest.							
Aquatic Habitats (ex: None.	submerged or	emerged a	quatic vegetat	lion, overhangin	ig banks/ro	oots, leaf packs, la	arge submerged v	wood, riffles, deep po	ools, etc.):	
Aquatic Organisms (None.	Observed (list):								
Disturbances (ex: live The banks of the feat					harge pip	pes):				
Observation Notes: The swale runs adjace	ent to an a	ccess roa	ad. There i	ıs no water բ	present	at the time of	survey.			



sirb007e_E (upstream)



sirb007e_N (across)



sirb007e_NW (downstream)

Waterbody Data	Once											
Description												
Project Name:						Date:			Waterbody Survey ID:			
Line 5 Relocation Project					2019-09-17			sirb001e				
State: County/Parish:						USGS Waterbody Name:						
WI Iron						UNT to Feldcher Creek						
Company: Crew			mber Init	ials:		Latitude:	Latitude:			Longitude:		
Enbridge MAL			M			46.391690	46.391690			-90.547826		
Survey Type: [✓ Centerl	ine	☐ Re-Rou	ute	$\Box A$	Access Road	□Facility	□Other				
Waterbody Type: [(check one)	River		✓ Stream			Ditch ☐ Swale ☐ Cana				Other		
Water Appearance: [☑ No Wa	ter	☐ Clear ☐ T			urbid □Sheen on □Surfa Surface			ce Scum ☑ Algal Mats □Other			
Existing Condition a: (check one)	☐ Highly	Function	nal Stream Moderately			Functional Stream ☐ Functionally			Impaired Stre	eam		
Feature Description: [(check one)	✓ Natural		☐ Artificia	ıl, man-mad	de 🗆	Manipulated						
Flow Regime: [☑ Ephem	eral	☐ Intermi	ttent		Perennial	☐ Connection	ting				
Sinuosity within Survey Corridor: (check one)	hin □ Straight 🗹 Meandering											
Ephemeral stream flow	ing between	en two w	etianu lea	itures (Wilbi	0001 411	a wiiboo71).						
Measurements												
Depth of Water:	_ft.	N/A 🗹	Unknov	_{vn□} Wat	er Edge	to Water Ed	ge: ft.	N/A 🗹	OHWM Widt	t h: <u>4</u> f t.		
OHWM Indicator: (check all that apply)	ear line on bank ☐Shelving			g	□Wrested vegetation □Scouring			□Water staining				
(спеск ан шагарру)		nt, matte		□Wrack	line	□Litter and debris □Abrupt pla change			nt community □Soil characteristic change			
Dominant Substrate: (check all that apply)	☑ Be	edrock	☑ Bot	ulder [☑ Cobb	le 🗆 G	ravel	☐ Sand	□ Silt/ cla	y 🗆 Organic		
Observations												
Riparian Zone Present (check one)	t: □ Ye	es		No								
Vegetation Layers: (check all that apply)	☑ Tr	ees		Saplings/Sh	rubs	☐ Herbs						
Dominant Bank Vegetation (list): Betula alleghaniensis, Fraxinus pennsylvanica, and Ostrya virginiana.												
Aquatic Habitats (ex: su None.	-		uatic vegetat	ion, overhangir	ng banks/ro	oots, leaf packs, la	rge submerged w	vood, riffles, deep po	ools, etc.):			
Aquatic Organisms Ol None.	bserved ((list):										
Disturbances (ex: lives None.	tock acces	s, manure	in waterboo	ly, waste disc	charge pi	ipes):						
Observation Notes: The feature is an epher	meral stre	am flowir	ng through	ı woodland.	. There	is no water pr	esent at the t	ime of survey.				



sirb001e_N (downstream)



sirb001e_S (upstream)



sirb001e_W (across)

Water body Data S	nicci											
Description												
Project Name:						Date:			Waterbody Survey ID:			
Line 5 Relocation Project					2019-09-17			sirb002e				
State: County/Parish:					USGS Water	body Name	:					
WI Iron						UNT to Feld	cher Creek					
Company: Cre			ember Ini	tials:		Latitude:			Longitude:			
Enbridge MA			MAL/SAM				46.391865			-90.547929		
Survey Type:	☑ Centerline ☐ Re-Route					Access Road	□Facility	□Other	r			
Waterbody Type:	rbody Type: River				☑ Stream □ □			☐ Canal		Other		
Water Appearance: 🗹	r Appearance: 🗹 No Water			□ Clear □T			urbid □Sheen on □Surfac Surface			lgal Mats □Other		
Existing Condition ^a :	Highly	Function	nal Stream Moderately			y Functional S		☐ Functionally	Impaired Stream	am		
Feature Description:	Natural		☐ Artificia	al, man-m	nade 🗆	Manipulated						
Flow Regime: (check one)	☑ Ephemeral □ Intermittent □						Perennial					
Sinuosity within Survey Corridor: (check one)	y within □ Straight ☑ Meandering											
The feature is an epheme	eral wat	erbody w	vithin mes	ic hardwo	ood forest.	There was no	water prese	ent at the time o	f survey.			
Measurements												
Depth of Water:ft	1.	N/A🗹	Unknov	wn□ W	/ater Edge	e to Water Ed	ge: ft.	N/A 🗹	OHWM Widtl	n: <u>3</u> ft.		
OHWM Indicator: (check all that apply)	☑ CI	ear line o	ne on bank □Shelving			□Wrested vegetation □Scouring			☐Water staining			
(онных ан ины арруу)		☑Bent, matted, or ☐Wrack line missing vegetation				□Litter and debris □Abrupt pla			t community	□Soil characteristic change		
Dominant Substrate: (check all that apply)	□ Ве	drock	௴ Во	ulder	☑ Cobb	le □ G	ravel	□ Sand	□ Silt/ clay	□ Organic		
Observations												
Riparian Zone Present: (check one)	□ Ye	s	V	No								
Vegetation Layers:	☑ Trees ☐ Saplings/Shrubs					✓ Herbs						
Dominant Bank Vegetati Fraxinus pennsylvanica, A	i on <i>(list</i> Athyriur): n filix-fer	mina.									
Aquatic Habitats (ex: subn None.	nerged or	emerged ac	quatic vegeta	tion, overha	nging banks/re	oots, leaf packs, la	rge submerged v	vood, riffles, deep po	ools, etc.):			
Aquatic Organisms Obs None.	erved ((list):										
Disturbances (ex: livestoo None.	k access	s, manure	in waterboo	dy, waste d	discharge pi	ipes):						
Observation Notes: The waterbody branches	off of fe	eature sir	rb001e.									



sirb002e_N (downstream)



sirb002e_S (upstream)



sirb002e_W (across)

Waterbody Date	a Silect											
Description												
Project Name:						Date:			Waterbody Survey ID:			
Line 5 Relocation Project					2019-09-17			sirb003e				
State: County/Parish:						USGS Wate	rbody Name	: :				
WI Iron						UNT to Feldcher Creek						
Company:	Crew Me	ember Init	tials:		Latitude:			Longitude:				
Enbridge	MAL/SAM				46.392496			-90.546486				
Survey Type: (check one)	✓ Centerl	ine	☐ Re-Ro	ute		Access Road	□Facility	□Other				
Waterbody Type: (check one)	□ River		☑ Stream □ I			Ditch ☐ Swale ☐ C			anal			
Water Appearance: (check one)	☑ No Wa	ter	☐ Clear ☐			Turbid	□Sheen on Surface	□Surfac	□Surface Scum □Algal Mats □Other			
Existing Condition a: (check one)	☐ Highly	Function	al Stream	V	Moderately				Impaired Stream			
Feature Description: (check one)	✓ Natural		☐ Artificia	al, man-m	nade 🗆 I	Manipulated						
Flow Regime: (check one)	☑ Ephem	eral	☐ Interm	ittent		Perennial						
Sinuosity within Survey Corridor: (check one)	☐ Straigh	nt	✓ Meand	dering								
Measurements												
Depth of Water:	ft.	N/A 🗹	Unknov	wn□ W	ater Edge	to Water Ed	ge: ft.	N/A 🗹	OHWM Wid	dth: <u>3</u> ft		
OHWM Indicator: (check all that apply)	□ CI	ear line c	on bank	□Shel	ving	☑ Wrested v	egetation	☑ Scouring		□Waters	taining	
(спеск ан тасарруу)		☑Bent, matted, or				Litter and debris □ Abrupt μ change			nt community ☐ Soil characteristic change			
Dominant Substrate: (check all that apply)	□В€	edrock	☑ Bo	ulder	☑ Cobbl	le 🗹 🤇	Gravel	☑ Sand	☐ Silt/ cla	ay 🗆 (Organic	
Observations												
Riparian Zone Preser	nt: 🗆 Ye	es	1	No								
Vegetation Layers: (check all that apply)	☑ Tr	ees	v (Saplings/	Shrubs	✓ Herbs						
Dominant Bank Vege The feature is surrour	etation (list ided by me	[:]) : esic hardv	wood fores	st.								
Aquatic Habitats (ex: None.	submerged or	emerged aq	quatic vegetal	tion, overhar	nging banks/ro	oots, leaf packs, la	arge submerged w	vood, riffles, deep po	ools, etc.):			
Aquatic Organisms (None.	Observed ((list):										
Disturbances (ex: live The feature is disturbed)				dy, waste o	discharge pi	ipes):						
Observation Notes: The feature runs from	upland me	esic hard\	wood into	disturbed	l fresh wet	t meadow. Th	ere is current	ily no water in t	he feature.			



sirb003e_E (downstream)



sirb003e_S (across)



sirb003e_W (upstream)

Trace. Bedy Back	4 011000									
Description										
Project Name:						Date:			Waterbody St	ırvey ID:
Line 5 Relocation Pro	ect					2019-09-17			sirb004e	
State:		County/	Parish:			USGS Wate	erbody Name) :		
WI		Iron				UNT to Feld	cher Creek			
Company:		Crew Mo	ember Ini	tials:		Latitude:			Longitude:	
Enbridge		MAL/SA	M			46.393208			-90.547300	
Survey Type: (check one)	✓ Centerl	ine	☐ Re-Ro	ute		Access Road	□Facility	□Other		
Waterbody Type: (check one)	□ River		☑ Strean	n		Ditch	☐ Swale	☐ Cana		Other
Water Appearance: (check one)	✓ No War	ter	☐ Clear			Turbid	☐Sheen or Surface	n □Surfac	e Scum □Al	gal Mats □Other
Existing Condition a: (check one)	☐ Highly	Function	al Stream		Moderatel	y Functional :		☐ Functionally	Impaired Strea	m
Feature Description: (check one)	✓ Natural		☐ Artificia	al, man-ı	made 🗆	Manipulated				
Flow Regime: (check one)	☑ Ephem	eral	☐ Interm			Perennial	☐ Connection Connection	eting		
Sinuosity within Survey Corridor: (check one)	☐ Straigh	t	✓ Mean	dering						
Measurements										
Depth of Water:	ft.	N/A 🗹	Unknov	wn 🗆 🛛 V	Vater Edge	e to Water Ed	lge: ft.	. N/A 🗹	OHWM Width	: <u>2</u> ft.
OHWM Indicator:	□ CI	ear line o	on bank	□She	elving	□Wrested \	egetation	Scouring		□Water staining
(check all that apply)	⊻ Be miss	nt, matte ing vege	ed, or tation	□Wra	ack line	☑ Litter and	debris	□Abrupt plan	t community	☐Soil characteristic change
Dominant Substrate: (check all that apply)	□ Ве	edrock	□ Во	ulder	☐ Cobb	ole 🗆 (Gravel	☐ Sand	坚 Silt/ clay	☐ Organic
Observations										
Riparian Zone Preser (check one)	nt: 🗹 Ye	es		No						
Vegetation Layers: (check all that apply)	☑ Tr	ees		Saplings	s/Shrubs	☑ Herbs	3			
Dominant Bank Vege Fraxinus nigra, Ulmus						-				
Aquatic Habitats (ex: None.	submerged or	emerged a	quatic vegeta	tion, overha	anging banks/i	roots, leaf packs, l	arge submerged v	wood, riffles, deep p	ools, etc.):	
Aquatic Organisms (None.	Observed ((list):								
Disturbances (ex: live None.	stock acces	s, manure	in waterboo	dy, waste	discharge p	oipes):				
Observation Notes: The feature does not	contain wa	ter at the	e time of si	urvey.						



sirb004e_E (upstream)



sirb004e_N (across)



sirb004e_W (downstream)

Trate: Deay Bate	011000									
Description										
Project Name:						Date:			Waterbody St	ırvey ID:
Line 5 Relocation Proj	ect					2019-09-18			sirb005p	
State:		County/	Parish:			USGS Wate	rbody Name	:		
WI		Iron				Feldcher Cr	eek			
Company:		Crew Me	ember Init	ials:		Latitude:			Longitude:	
Enbridge		MAL/SA	AM			46.397002			-90.543266	
Survey Type: (check one)	✓ Centerl	ine	☐ Re-Ro	ute	A	Access Road	□Facility	□Other		
'	□ River		✓ Stream	1		Ditch	☐ Swale	☐ Canal		Other
Water Appearance: (check one)	□ No Wa	er	☐ Clear		ØT	Turbid	☐Sheen or	ı □Surfac	e Scum □Al	gal Mats □Other
Existing Condition ^a : (check one)	☐ Highly	Function	nal Stream		Moderately	/ Functional S	Surface stream [☐ Functionally	Impaired Strea	m
Feature Description: (check one)	☐ Natural		☐ Artificia	al, man-m	nade 🗹 l	Manipulated				
(check one)	□ Ephem		☐ Interm		V	Perennial	☐ Connec Swale	ting		
Sinuosity within Survey Corridor: (check one)	□ Straigh	t	✓ Meand	lering						
The stream is densely wetland.	vegetated	anu is a	issociated	with a we	enand com	ipiex (wirbo is). There is in	o deillied balik	as the leature	uissipales within the
Measurements										
Depth of Water: 0.5	_ft.	N/A□	Unknov	vn□ W	ater Edge	to Water Ed	ge: <u>4</u> ft.	N/A□	OHWM Width	: <u>5</u> ft.
OHWM Indicator: (check all that apply)	□ CI	ear line o	on bank	□Shel	ving	☑ Wrested v	egetation	Scouring		□Water staining
(oncon an trut appry)		ent, matte ing veget		□Wrad	ck line	□Litter and	debris	□Abrupt plan	t community	☐Soil characteristic change
Dominant Substrate: (check all that apply)	□Ве	edrock	□ Во	ulder	☑ Cobbl	le 🗹 (Gravel	□ Sand	坚 Silt/ clay	□ Organic
Observations										
Riparian Zone Presen	t: 🗹 Ye	es	1	No						
Vegetation Layers: (check all that apply)	□ Tr	ees	v (Saplings/	Shrubs	✓ Herbs				
Dominant Bank Vege The banks of the strea atrovirens, Agrostis gio					o the conne	ected wetland	feature inclu	ıding Alnus inc	ana, Scirpus cy	/perinus, Scirpus
Aquatic Habitats (ex: s Standing water is pres					nging banks/ro	oots, leaf packs, la	rge submerged v	wood, riffles, deep po	ools, etc.):	
Aquatic Organisms O Common green darner	bserved , unknown	<i>list)</i> : ı fish sp.	, water stri	ders, nor	rthern leop	ard frog.				
Disturbances (ex: lives There is moderate inva	stock acces asive spec	s, manure ies cove	in waterboo r within clo	dy, waste o se proxir	discharge pi mity of the	pes): waterbody. T	he feature is	modified by be	aver activity.	
Observation Notes: The feature runs rough	nly N-S be	fore diss	ipating into	o wetland	l wirb015. ⁻	The feature is	also associa	ated with a bea	ver impoundmo	ent.



sirb005p_E (downstream)



sirb005p_N (across)



sirb005p_W (upstream)

Open Waterbody Data Sheet

Open waterbody	y Data	Sneet							
Description									
Project Name:					Date:			Waterbody Sเ	ırvey ID:
Line 5 Relocation Proje	ect				2019-10-02			oase001	
State:		County/	Parish:		USGS Wate	body Name	:		
WI		Ashland	1		None				
Company:		Crew Mo	ember Initials:		Latitude:			Longitude:	
Enbridge		NTT/AR	KK/MAL		46.404324			-90.566241	
Survey Type: [☐ Centerl	ine	☐ Re-Route		Access Road	□Facility	□Other		
Waterbody Type: [☐ Stock F	ond	✓ Natural Pond		Fishing Pond	☐ Lake	☐ Other		
Water Appearance: [□ No Wa	ter	✓ Clear	□Т	Turbid	☐Sheen or Surface	n □Surfac	e Scum □Al	gal Mats □Other
Feature Quality: [check one)	□ High		☐ Moderate	V	Low				
Feature Description: [(check one)	✓ Natural		☐ Artificial, man-	made 🗆 I	Manipulated				
The open waterbody is	a large na	atural po	nd located along a	a farm acce	ess road. Wat	ਭrbody is ass	ociated with ar	n emergent wet	iland (wase033e).
Measurements									
Depth of Water: 1	_ ft.	N/A□	Unknown□						
OHWM Indicator: (check all that apply)	☑ CI	ear line o	on bank □She	elving	□Wrested ve	getation	□Scouring		□Water staining
		nt, matte		ack line	☑ Litter and o	lebris	☑Abrupt plan change	t community	☐Soil characteristic change
Dominant Substrate: (check all that apply)	□Ве	edrock	☐ Boulder	☐ Cobb	le □ G	Gravel	□ Sand	□ Silt/ clay	坚 Organic
Observations									
Riparian Zone Present (check one)	t: ☑ Y∈	es	□ No						
Vegetation Layers: (check all that apply)	□ Tr	ees	☐ Saplings	s/Shrubs	☑ Herbs				
Dominant Bank Veget Phalaris arundinacea, E	ation (list Bidens sp):							
Aquatic Habitats (ex: su Large open pond with re	ubmerged or oughly a f	emerged action of sta	quatic vegetation, overh anding water. Like	anging banks/roely inundate	oots, leaf packs, la d all year.	rge submerged v	vood, riffles, deep po	ools, etc.):	
Aquatic Organisms Ol Tadpoles, frogs, minno	bserved (ws.	(list):							
Disturbances (ex: lives Runoff from adjacent ro	tock access ad.	s, manure	in waterbody, waste	e discharge pi	ipes):				
Observation Notes: Feature continues outsi	ide surve	corrido	r.						



oase001_E



oase001_S



oase001_SW

Water body Data Si	1001							
Description								
Project Name:				Date:			Waterbody S	urvey ID:
Line 5 Relocation Project				2019-10-02			sasc031i	
State:	Count	y/Parish:		USGS Wate	rbody Name:	•		
WI	Ashla	nd		None				
Company:	Crew	Member Initia	als:	Latitude:			Longitude:	
Enbridge	BRG/s	JSW		46.407338			-90.555713	
Survey Type: (check one)	enterline	☐ Re-Rout	te [Access Road	□Facility	□Other		
Waterbody Type: ☐ R	liver	☑ Stream]	□ Ditch	☐ Swale	☐ Canal		Other
Water Appearance: ☐ N (check one)	o Water	☑ Clear	[□Turbid	☐Sheen on Surface	□Surfac	e Scum □A	lgal Mats □Other
Existing Condition ^a :	lighly Functi	onal Stream	☐ Moderat	tely Functional S	Stream [Functionally	Impaired Strea	am
Feature Description: V N	atural	☐ Artificial	, man-made [□ Manipulated				
Flow Regime:	phemeral	✓ Intermit	tent [☐ Perennial	☐ Connect	ting		
Sinuosity within Survey Corridor:	traight	✓ Meande	ering					
Measurements								
Depth of Water: 0.3 ft.	N/A□	Unknowr	n□ Water Ed	lge to Water Ed	ge: 2 ft.	N/A□	OHWM Widtl	n: <u>2</u> ft.
OHWM Indicator: (check all that apply)	☐ Clear line	e on bank	□Shelving	□Wrested v	egetation	☑ Scouring		□Water staining
(спеск ан так арруу)	☑Bent, ma missing veg		□Wrack line	□Litter and	debris	□Abrupt plan change	t community	☐Soil characteristic change
Dominant Substrate: (check all that apply)	☐ Bedrock	☐ Boul	der 🗆 Co	bble 🗆 (Gravel	☑ Sand	□ Silt/ clay	□ Organic
Observations								
Riparian Zone Present:	☐ Yes	☑ No	0					
Vegetation Layers: (check all that apply)	☑ Trees	☑ Sa	aplings/Shrubs	☑ Herbs				
Dominant Bank Vegetatio Populus tremuloides, Alnus	n <i>(list)</i> : s incana, Gly	/ceria striata,	Carex crinita, S	Symphyotrichum	lateriflorum.			
Aquatic Habitats (ex: subme Overhanging vegetation.		I aquatic vegetatio	n, overhanging bank	ks/roots, leaf packs, la	arge submerged w	ood, riffles, deep po	ools, etc.):	
Aquatic Organisms Observine.	rved (list):							
Disturbances (ex: livestock Runoff from dirt road.	access, manu	ıre in waterbody	r, waste discharge	e pipes):				
Observation Notes: The stream has been some	ewhat affecto	ed by the dirt i	road.					



sasc031i_E (upstream)



sasc031i_S (across)



sasc031i_W (downstream)

Trate: Beay Bat	4 011000									
Description										
Project Name:						Date:			Waterbody St	ırvey ID:
Line 5 Relocation Pro	ject					2019-10-02			sasc030i	
State:		County/	Parish:			USGS Wate	rbody Name	:		
WI		Ashland	I			None				
Company:		Crew M	ember Ini	tials:		Latitude:			Longitude:	
Enbridge		BRG/JS	SW .			46.408530			-90.555050	
Survey Type: (check one)	☐ Centerl	ine	☐ Re-Ro	ute	V A	ccess Road	□Facility	□Other		
Waterbody Type: (check one)	☐ River		☑ Strean	n		Ditch	☐ Swale	☐ Canal		Other
Water Appearance: (check one)	☐ No Wa	ter	✓ Clear		□T	urbid	☐Sheen or Surface	ı □Surfac	e Scum □Al	gal Mats □Other
Existing Condition ^a : (check one)	☐ Highly	Function	al Stream	I Mo	oderately	Functional S		☐ Functionally	Impaired Strea	m
Feature Description: (check one)	✓ Natural			al, man-ma	de 🗆 N	Manipulated				
Flow Regime: (check one)	☐ Ephem	eral	✓ Interm	ittent	□ F	Perennial	☐ Connec Swale	ting		
Sinuosity within Survey Corridor: (check one)	□ Straigh	t	✓ Mean	dering						
The feature is a small created by a beaver d		at runs fr	om a youn	ig forest un	der a diri	t road via a ci	ulvert. The fe	ature then flow	s into an open	waterbody that was
Measurements										
Depth of Water: 0.4	ft.	N/A□	Unknov	wn□ Wat	ter Edge	to Water Ed	ge: <u>3</u> ft.	N/A□	OHWM Width	: <u>3</u> ft.
OHWM Indicator:	□ Cl	ear line	on bank	□Shelvir	ng	□Wrested v	egetation	 Scouring		□Water staining
(check all that apply)		nt, matte ing vege		□Wrack	line	□Litter and	debris	□Abrupt plan	t community	☐Soil characteristic change
Dominant Substrate: (check all that apply)	□ Ве	edrock	□ Во	ulder	□ Cobbl	le 🗆 C	Gravel	□ Sand	坚 Silt/ clay	□ Organic
Observations										
Riparian Zone Preser	nt: 🗆 Ye	es	V	No						
Vegetation Layers: (check all that apply)	☑ Tr	ees		Saplings/Sl	nrubs	✓ Herbs				
Dominant Bank Vege Acer rubrum, Populus	etation (list tremuloide): es, Alnus	incana, C	Cornus serio	cea, Care	ex crinita, Imp	atiens capen	ısis, Glyceria gı	andis, Carex r	etrorsa.
Aquatic Habitats (ex: Riffles, overhanging v	submerged or egetation.	emerged a	quatic vegeta	tion, overhangi	ng banks/ro	oots, leaf packs, la	irge submerged v	wood, riffles, deep po	ools, etc.):	
Aquatic Organisms (None.	Observed ((list):								
Disturbances (ex: live Runoff from dirt road,	stock acces culvert, do	s, manure wnstrear	in waterbo n beaver o	dy, waste dis dam, histori	charge pi ic loggino	pes): g activity.				
Observation Notes: The feature is somew	hat disrupt	ed by his	storic loggi	ing activity	and road	l runoff, and i	s associated	with alder thick	et wetland was	sc045s.



sasc030i_E (upstream)



sasc030i_S (across)



sasc030i_W (downstream)

Waterbody Date	a Silect										
Description											
Project Name:						Date:			Waterbody	/ Survey ID:	
Line 5 Relocation Pro	ject					2019-10-01			sirc006e		
State:		County/F	Parish:			USGS Water	body Name	•			
WI		Iron				None					
Company:		Crew Me	ember Init	ials:		Latitude:			Longitude:	<u> </u>	
Enbridge		BRG/JS\	W			46.403399			-90.545321	1	
Survey Type: (check one)	☐ Centerl	ine	☐ Re-Rou	ute	V	Access Road	□Facility	□Other			
Waterbody Type:	☐ River		✓ Stream	1		Ditch	☐ Swale	☐ Canal		Other	
Water Appearance: (check one)	✓ No War	ter	☐ Clear			Turbid	□Sheen on Surface	□Surfac	e Scum 🗆	□Algal Mats	□Other
Existing Condition ^a :	☐ Highly	Function	al Stream	☐ Mode	erately	y Functional S		Functionally	Impaired St	ream	
Feature Description: (check one)	☐ Natural		✓ Artificia	al, man-made	· 🗆	Manipulated					
Flow Regime:	☑ Ephem	eral	☐ Intermi	ttent		Perennial	☐ Connect	ting			
Sinuosity within Survey Corridor: (check one)	☐ Straigh	t	☑ Meand	lering			- CWalc				
Description Notes: The feature is a small excavated artificial fea		stream th	at only ex	ists as a resu	ılt of rı	unoff from the	adjacent gra	vel road and as	ssociated cu	ulvert. It is a p	artially
Measurements Depth of Water:	ft.	N/A Ľ	Unknov	vn□ Water	· Edge	e to Water Ed	ge: ft.	N/A 🗹	OHWM Wid	dth: <u>2</u> f	t.
OHWM Indicator:	□ C	ear line o	n bank	□Shelving		□Wrested ve	egetation	 Scouring		□Waters	staining
(check all that apply)	⊻ Be	nt, matte	d, or	□Wrack lin	ne	□Litter and o		□Abrupt plan change	t community		aracteristic
Dominant Substrate: (check all that apply)	□Ве	edrock	□ Воι	ulder 🗆	Cobb	le 坚 G	ravel	□ Sand	I Silt/ cl	lay 🗆 🗆	Organic
Observations											
Riparian Zone Preser (check one)	nt: 🗆 Ye	es		No							
Vegetation Layers: (check all that apply)	☑ Tr	ees		Saplings/Shru	ıbs	✓ Herbs					
Dominant Bank Vege Populus tremuloides,	etation (list Fraxinus n): igra, Rub	us idaeus	, Osmunda c	layton	iana, Hypericu	ım perforatur	m, Oenothera b	piennis.		
Aquatic Habitats (ex: None.	submerged or	emerged aq	uatic vegetat	ion, overhanging	banks/r	oots, leaf packs, la	rge submerged w	ood, riffles, deep po	pols, etc.):		
Aquatic Organisms (None.	Observed ((list):									
Disturbances (ex: live Erosion, runoff from g	stock acces ravel road,	s, manure culverts.	in waterboo	ly, waste disch	arge p	ipes):					
Observation Notes: The feature is artificia	l and of lov	v quality,	and is ass	sociated with	sever	al ditches.					



sirc006e_NW (upstream)



sirc006e_SE (downstream)



sirc006e_SW (across)

vvaterbody bata	Officet									
Description										
Project Name:						Date:			Waterbody \$	Survey ID:
Line 5 Relocation Project	ct					2019-10-01			sirc008e	
State:		County/	Parish:			USGS Wate	rbody Name	:		
WI		Iron				None				
Company:		Crew Mo	ember Init	ials:		Latitude:			Longitude:	
Enbridge		BRG/JS	SW			46.403284			-90.545308	
Survey Type:	Centerl	ine	☐ Re-Ro	ute		Access Road	□Facility	□Other		
Waterbody Type: (check one)	River		☐ Stream	1	V	Ditch	☐ Swale	☐ Canal		Other
Water Appearance: (check one)	No Wa	ter	☐ Clear			Turbid	☐Sheen or Surface	□Surfac	e Scum □/	Algal Mats □Other
Existing Condition a: [check one]	Highly	Function	nal Stream	☐ Mod	derately	y Functional S	tream [Y Functionally □	Impaired Stre	am
Feature Description:	Natural		✓ Artificia	al, man-mad	е 🗆	Manipulated				
Flow Regime: (check one)	1 Ephem	eral	☐ Interm	ittent		Perennial	☐ Connec Swale	ting		
Sinuosity within Survey Corridor: (check one)	1 Straigh	t	☐ Meand	lering						
The feature is a small en	rosional (ditch thai	t borders a	gravel road						
Measurements										
	ft.	N/A 🗹	Unknov	vn□ Wate	r Edge	e to Water Ed	ge: ft.	N/A🗹	OHWM Widt	h: <u>2</u> ft.
OHWM Indicator: (check all that apply)	□ CI	ear line	on bank	□Shelving	3	□Wrested v	egetation	✓Scouring		□Water staining
(спеск ан так арруу)		nt, matte		□Wrack li	ne	□Litter and	debris	□Abrupt plan change	t community	☐Soil characteristic change
Dominant Substrate: (check all that apply)	□В€	edrock	□ Во	ulder 🗆	Cobb	le 🗹 🤇	Gravel	□ Sand	I Silt/ cla	y 🗆 Organic
Observations										
Riparian Zone Present:	□Y€	es	<u> </u>	No						
Vegetation Layers: (check all that apply)	☑ Tr	ees	Ø (Saplings/Shr	ubs	☑ Herbs				
Dominant Bank Vegeta Populus tremuloides, Ad	t ion (list cer sacch): iarum, R	ubus idaeı	us, Hypericu	m perf	oratum.				
Aquatic Habitats (ex: sul None.	omerged or	emerged a	quatic vegetat	ion, overhangino	g banks/r	oots, leaf packs, la	irge submerged v	vood, riffles, deep po	ools, etc.):	
Aquatic Organisms Ob None.	served ((list):								
Disturbances (ex: livestor Runoff from gravel road		s, manure	in waterboo	dy, waste disc	harge pi	ipes):				
Observation Notes: The feature is associate	d with a	culvert. F	Flows into	sirc006e.						



sirc008e_NE (downstream)



sirc008e_NW (across)



sirc008e_SW (upstream)

Waterbody Date	a Silect										
Description											
Project Name:						Date:			Waterbody	y Survey ID:	
Line 5 Relocation Pro	ject					2019-10-01			sirc007e		
State:		County/I	Parish:			USGS Wate	body Name	: :			
WI		Iron				None					
Company:		Crew Me	ember Init	ials:		Latitude:			Longitude	:	
Enbridge		BRG/JS	W			46.403528			-90.54514	4	
Survey Type: (check one)	☐ Centerl	ine	☐ Re-Ro	ute	V /	Access Road	□Facility	□Other			
Waterbody Type: (check one)	□ River		☐ Stream	1	V	Ditch	☐ Swale	☐ Canal	[Other	
Water Appearance: (check one)	✓ No War	ter	☐ Clear		1	Гurbid	☐Sheen or Surface	□Surfac	e Scum [□Algal Mats	□Other
Existing Condition a: (check one)	☐ Highly	Function	al Stream	□ Mode	erately	y Functional S		Functionally	Impaired St	tream	
Feature Description:	☐ Natural		Artificia	al, man-made	· 🗆	Manipulated					
Flow Regime: (check one)	☑ Ephem	eral	☐ Intermi	ittent		Perennial	☐ Connec	ting			
Sinuosity within Survey Corridor: (check one)	☑ Straigh	t	□ Meand	lering			Owale				
The feature is a small	erosional	ditch on t	he side of	a gravel road	d.						
Measurements											
Depth of Water:	ft.	N/A 🗹	Unknov	_{vn}	Edge	to Water Ed	ge: ft.	N/A 🗹	OHWM Wi	idth:11	ft.
OHWM Indicator: (check all that apply)	□ CI	ear line o	n bank	□Shelving		□Wrested v	egetation	☑ Scouring		□Water	staining
		nt, matte		□Wrack lin	ne	□Litter and o	lebris	□Abrupt plan change	t communit	ty □Soil ch change	aracteristic
Dominant Substrate: (check all that apply)	□ Ве	edrock	□ Воι	ulder 🗆	Cobb	le 🗹 🤆	iravel	□ Sand	☑ Silt/ c	lay 🗆	Organic
Observations											
Riparian Zone Prese	nt: 🗆 Ye	es	M 1	No							
Vegetation Layers: (check all that apply)	□ Tr	ees		Saplings/Shru	ubs	✓ Herbs					
Dominant Bank Vege Rubus idaeus, Oenot	etation <i>(list</i> nera bienni): s, Bidens	frondosa	, Hypericum	perfor	atum, Persica	ria sagittata,	Scirpus hattoria	anus.		
Aquatic Habitats (ex: None.	submerged or	emerged aq	uatic vegetat	ion, overhanging	banks/r	oots, leaf packs, la	rge submerged v	wood, riffles, deep po	ools, etc.):		
Aquatic Organisms (None.	Observed ((list):									
Disturbances (ex: live Runoff from gravel roa	stock acces ad.	s, manure	in waterboo	dy, waste disch	arge p	ipes):					
Observation Notes: The ditch feeds into e	phemeral s	stream sir	rc006e.								



sirc007e_NE (upstream)



sirc007e_NW (across)



sirc007e_SW (downstream)

APPENDIX F

Waterbody Data Sheets
Part 22 of 24

Waterbody Date	a Silect										
Description											
Project Name:						Date:			Waterbody	Survey ID:	
Line 5 Relocation Pro	ject					2019-10-01			sire002e		
State:		County/F	Parish:			USGS Water	body Name	<u> </u>			
WI		Iron				None					
Company:		Crew Me	mber Initi	als:		Latitude:			Longitude:		
Enbridge		NTT/MAI	L/ARK			46.403705			-90.544776	3	
Survey Type: (check one)	☐ Centerl	ine [☐ Re-Rou	te	V /	Access Road	□Facility	□Other			
Waterbody Type: (check one)	☐ River		□ Stream		V	Ditch	☐ Swale	☐ Canal		Other	
Water Appearance: (check one)	☑ No Wat	ter [□ Clear		□1	Γurbid	□Sheen on Surface	□Surfac	e Scum 🗆	Algal Mats	□Other
Existing Condition ^a : (check one)	☐ Highly	Functiona	al Stream	☑ Mode	erately	y Functional S		☐ Functionally	Impaired Str	ream	
Feature Description: (check one)	☐ Natural	[☑ Artificia	l, man-made		Manipulated					
Flow Regime: (check one)	☑ Ephem	eral	☐ Intermit	ttent		Perennial	☐ Connect	ting			
Sinuosity within Survey Corridor: (check one)	☑ Straigh	t I	□ Meande	ering							
Description Notes: The waterbody is an earthe south and continu				-	ad. Di	tch has been i	recently exca	ivated. Ditch cr	osses throuç	gh culvert unde	r the road to
Measurements											
Depth of Water:	ft.	N/A 🗹	Unknow	n	Edge	to Water Ed	ge: ft.	N/A	OHWM Wid	dth: 2 ft.	
OHWM Indicator: (check all that apply)	□ CI	ear line o	n bank	□Shelving		□Wrested ve	egetation	☑ Scouring		□Water sta	ining
		nt, matted		□Wrack line	е	☑ Litter and o	lebris	□Abrupt plan change	t community	/ 坚 Soil chara change	acteristic
Dominant Substrate: (check all that apply)	□ Ве	edrock	□ Bou	lder 🗆	Cobb	le 🗹 G	ravel	☑ Sand	☐ Silt/ cla	ay 🗆 Or	ganic
Observations											
Riparian Zone Preser	nt: 🗆 Ye	es	V N	lo							
Vegetation Layers: (check all that apply)	☐ Tr	ees	□S	aplings/Shru	bs	☐ Herbs					
Dominant Bank Vege No vegetation through	etation (list nout ditch.):									
Aquatic Habitats (ex: None.	submerged or	emerged aqı	uatic vegetation	on, overhanging I	oanks/ro	oots, leaf packs, la	rge submerged w	vood, riffles, deep po	ools, etc.):		
Aquatic Organisms (None.	Observed ((list):									
Disturbances (ex: live Recently excavated.	stock acces	s, manure i	in waterbod	y, waste discha	arge pi	ipes):					
Observation Notes: None.											



sire002e_NE (upstream)



sire002e_SE (across)



sire002e_SW (downstream)

valerbody bala	JIICCL									
Description										
Project Name:						Date:			Waterbody S	Survey ID:
Line 5 Relocation Project	t					2019-10-01			sire003e	
State:		County/	Parish:			USGS Wate	rbody Name	:		
WI		Iron				None				
Company:		Crew Mo	ember Init	ials:		Latitude:			Longitude:	
Enbridge		NTT/MA	L/ARK			46.403895			-90.544462	
Survey Type:	Centerl	ine	☐ Re-Ro	ute	V	Access Road	□Facility	□Other		
Waterbody Type:	River		☐ Stream	1	V	Ditch	☐ Swale	☐ Canal		Other
Water Appearance:	No Wat	er	☐ Clear			Turbid	☐Sheen on Surface	n □Surfac	e Scum 🗆 🗸	Algal Mats □Other
Existing Condition ^a :	Highly	Function	al Stream	☐ Mod	eratel	y Functional S		Functionally	Impaired Stre	am
Feature Description:	Natural		✓ Artificia	al, man-made	e 🗆	Manipulated				
Flow Regime: (check one)	Ephem	eral	☐ Intermi	ittent		Perennial	☐ Connec	ting		
Sinuosity within Survey Corridor: (check one)	Straigh	t	☐ Meand	ering						
Description Notes: Artificial ditch feature tha	t flows ii	nto anoth	ner ditch (s	sire002e). No	wate	r currently pre	sent.			
Measurements										
	t.	N/A Ľ	Unknov	_{vn□} Wate	r Edge	e to Water Ed	ge: ft.	N/A 🗹	OHWM Widt	h: <u>2</u> ft.
OHWM Indicator:	□ CI	ear line o	on bank	 ☐Shelving		□Wrested v	egetation	 ✓Scouring		□Water staining
(check all that apply)		nt, matte ng vege		□Wrack lir	ne	□Litter and o	debris	□Abrupt plan change	t community	□Soil characteristic change
Dominant Substrate: (check all that apply)	□ Ве	drock	□ Во	ulder 🗆	Cobb	ole 🗹 🤆	Gravel	坚 Sand	☐ Silt/ clay	y □ Organic
Observations										
Riparian Zone Present: (check one)	□Ye	s	I	No						
Vegetation Layers: (check all that apply)	□ Tr	ees		Saplings/Shru	ubs	☐ Herbs				
Dominant Bank Vegetat No vegetation present.	ion (list):								
Aquatic Habitats (ex: subr None.	merged or	emerged a	quatic vegetat	ion, overhanging	banks/r	oots, leaf packs, la	rge submerged w	vood, riffles, deep po	ools, etc.):	
Aquatic Organisms Obs None.	served (list):								
Disturbances (ex: livestor Waterbody was recently	ck access excavat	s, manure ed.	in waterboo	ly, waste disch	arge p	ipes):				
Observation Notes: None.										



sire003e_NE (upstream)



sire003e_SE (across)



sire003e_SW (downstream)

Tracorbody Back	4 011000														
Description															
Project Name:						D	ate:				Waterbod	y Sur	vey ID:		
Line 5 Relocation Proj	ect					2	2019-10-01				sire001i				
State:		County/	/Parish:			U	SGS Wate	rbody Nam	ne:						
WI		Iron				Ν	lone								
Company:		Crew M	ember Ini	tials:		L	atitude:				Longitude) :			
Enbridge		NTT/AF	RK/MAL			4	6.404813				-90.54338	5			
Survey Type: (check one)	☐ Center	ine	☐ Re-Ro	oute		☑ Acc	cess Road	□Facility		□Other					
Waterbody Type: (check one)	□ River		✓ Strear	n		☐ Dif	tch	☐ Swale		☐ Cana		□ Oth	ner		
Water Appearance: (check one)	☐ No Wa	ter	☑ Clear			□Tur	rbid	☐Sheen of Surface	on [□Surfac	e Scum	□Alga	al Mats	□Other	
Existing Condition ^a : (check one)	☐ Highly	Function	nal Stream	n 🗆	Modera	ately F	unctional S		Func	tionally	Impaired S	tream	ı		
Feature Description: (check one)	✓ Natura		☐ Artifici		-made	□ Ma	anipulated								
Flow Regime: (check one)	☐ Ephem	eral	✓ Interm	nittent		□ Pe	erennial	☐ Conne Swale	ecting						
Sinuosity within Survey Corridor: (check one)	☐ Straigh	it	✓ Mean	dering											
Measurements															
Depth of Water: 2	ft.	N/A□	Unkno	wn□	Water E	dge to	o Water Ed	ge : <u>3</u> 1	ft.	N/A□	OHWM W	idth:	<u>3</u> f	t.	
OHWM Indicator: (check all that apply)	□С	ear line	on bank	□Sh	elving		□Wrested v	egetation	□Sco	uring			□Waters	staining	_
, , , , , , , , , , , , , , , , , , , ,		nt, matte		□Wr	ack line		Litter and	debris	⊠ Abr chang		t communi		∃Soil cha change	aracteristic	
Dominant Substrate: (check all that apply)	□В€	edrock	□ Во	oulder	☑ Co	obble		Gravel	□ Sar	nd	I Silt/ o	clay		Organic	
Observations															
Riparian Zone Preser (check one)	nt: 🗹 Ye	es		No											
Vegetation Layers: (check all that apply)	☑ Tr	ees	V	Sapling	s/Shrubs	3	✓ Herbs								
Dominant Bank Vege Fraxinus nigra, Matteu	tation (list accia struth) : iiopteris,	Carex bro	omoides	s, and Ca	alama	grostis cana	adensis.							
Aquatic Habitats (ex: Standing water, overh	submerged or anging ve	emerged a getation.	quatic vegeta	ation, overh	hanging bar	nks/root	s, leaf packs, la	irge submerged	d wood, riffle	es, deep p	ools, etc.):				
Aquatic Organisms C None.	bserved	(list):													
Disturbances (ex: live Located along frequer	stock acces ntly travele	s, manure d access	e in waterbo s road. Cul	dy, waste lvert und	e discharg der roads	je pipe side.	es):								
Observation Notes: Feature continues out	side surve	y corrido	or.												



sire001i_E (downstream)



sire001i_N (across)



sire001i_W (upstream)

Trater Body Batt	2 011000										
Description											
Project Name:						Date:			Waterbody S	urvey ID:	
Line 5 Relocation Proj	ect					2019-09-24			sird010e		
State:		County/P	arish:			USGS Wate	rbody Name	e:	•		
WI		Iron				UNT to Feld	cher Creek				
Company:		Crew Mei	mber Init	ials:		Latitude:			Longitude:		
Enbridge		AGG/MD	L			46.405698			-90.532118		
Survey Type: (check one)	☑ Centerle	ine [☐ Re-Rou	ute		Access Road	□Facility	□Other			
Waterbody Type: (check one)	□ River	[☑ Stream	1		Ditch	☐ Swale	☐ Cana	I 🗆 C	Other	
Water Appearance: (check one)	☑ No Wa	er [□ Clear			Γurbid	☐Sheen o Surface	n □Surfac	ce Scum □A	lgal Mats	□Other
Existing Condition ^a :	☐ Highly	Functiona	al Stream	9 1	Moderately	y Functional S		☐ Functionally	Impaired Strea	am	
Feature Description: (check one)	✓ Natural		☐ Artificia	al, man-m	nade 🗆	Manipulated					
Flow Regime: (check one)	☑ Ephem	eral [☐ Intermi	ittent		Perennial	☐ Connec	cting			
Sinuosity within Survey Corridor: (check one)	□ Straigh	t [☑ Meand	ering							
Measurements											
Depth of Water:	ft.	N/A M	Unknow	vn□ W	ater Edge	to Water Ed	l ge: ft	t. N/A🗹	OHWM Width	1: <u>7</u> ft.	
OHWM Indicator: (check all that apply)	□ CI	ear line or	n bank	□Shelv	ving	□Wrested v	egetation	□Scouring		□Water st	taining
(спеск ан тасарру)		ent, matted ing vegeta		□Wrac	k line	□Litter and	debris	□Abrupt plar	t community	☑ Soil cha change	racteristic
Dominant Substrate: (check all that apply)		edrock	☑ Bou	ulder	☑ Cobb	le 🗹 (Gravel	□ Sand	□ Silt/ clay	□ C	rganic
Observations											
Riparian Zone Preser	nt: 🗆 Ye	es	M V	No							
Vegetation Layers: (check all that apply)	☑ Tr	ees	V S	Saplings/S	Shrubs	☑ Herbs					
Dominant Bank Vege Fraxinus nigra, Athyrid	tation (list um angusti) : um, Calam	nagrostis	canaden	sis.						
Aquatic Habitats (ex: None.	submerged or	emerged aqu	uatic vegetati	ion, overhar	nging banks/r	oots, leaf packs, l	arge submerged	wood, riffles, deep p	ools, etc.):		
Aquatic Organisms C None.)bserved (Tist):									
Disturbances (ex: live Logging road.	stock acces	s, manure ir	n waterbod	ly, waste d	discharge p	ipes):					
Observation Notes: The feature is a narro	w epheme	al stream	located v	within a la	arger swal	e. There is a	logging road	to the south of	the feature tha	it impacts th	e flow.



sird010e_E (across)



sird010e_N (upstream)



sird010e_S (downstream)

Waterbody Date	a Sileet										
Description											
Project Name:						Date:			Waterbod	y Survey ID:	
Line 5 Relocation Pro	ject					2019-10-18			sira004p		
State:		County	/Parish:			USGS Wate	erbody Name	9 :			
WI		Iron				Tyler Forks					
Company:		Crew M	ember Ini	tials:		Latitude:			Longitude):	
Enbridge		KDF/D0	GL/BRG			46.413432			-90.51667	2	
Survey Type: (check one)	✓ Center	line	☐ Re-Ro	ute		Access Road	□Facility	□Other			
Waterbody Type: (check one)	☑ River		☐ Strean	n		Ditch	☐ Swale	☐ Cana		□ Other	
Water Appearance: (check one)	□ No Wa	ter	☑ Clear			Turbid	□Sheen o Surface	n □Surfac	e Scum	□Algal Mats	□Other
Existing Condition a: (check one)	☑ Highly	Function	nal Stream	n 🗆	Moderate	ly Functional		☐ Functionally	Impaired S	tream	
Feature Description: (check one)	✓ Natura		☐ Artificia	al, man-ı	made 🗆	Manipulated					
Flow Regime:	□ Ephem	eral	☐ Interm	ittent	V	Perennial	☐ Connec	cting			
Sinuosity within Survey Corridor: (check one)	☐ Straigh	nt	✓ Mean	dering			Owale				
The river is located w	ithin mesic	hardwoo	od forest, v	with publ	ic access	on both sides	via logging re	oad.			
Measurements											
Depth of Water:	ft.	N/A□	Unknov	wn 🗹 V	Vater Edg	e to Water Ed	ige : <u>25</u> ft	N/A 🗆	OHWM Wi	idth: <u>25</u>	ft.
OHWM Indicator: (check all that apply)	☑ C	lear line	on bank	□She	lving	□Wrested \	egetation	✓ Scouring		□Water	staining
		ent, matte ing vege		□Wra	ick line	□Litter and	debris	□Abrupt plar change	t communit	ty □Soil ch change	naracteristic
Dominant Substrate: (check all that apply)	□Ве	edrock	□ Во	ulder	☑ Cobl	ble 🗆	Gravel	☑ Sand	□ Silt/ c	clay 🗆	Organic
Observations											
Riparian Zone Prese	nt: 🗆 Ye	es	V	No							
Vegetation Layers:	☑ Tr	ees		Saplings	/Shrubs	☑ Herbs	3				
Dominant Bank Vege Abies balsamea, Ace	etation (list	t) : um, Tsu	ga canade	ensis, Be	tula allegh	naniensis, Ulm	us americana	a, Acer rubrum,	Carex cf. g	gracillima.	
Aquatic Habitats (ex. Downed woody debris	submerged or s, overhanç	emerged a ging banl	quatic vegeta ks and roo	tion, overh	anging banks/	/roots, leaf packs,	arge submerged	wood, riffles, deep p	ools, etc.):		
Aquatic Organisms (None.	Observed	(list):									
Disturbances (ex: live Significant bank erosi	stock acces on on west	s, manure side of	e in waterboostream.	dy, waste	discharge p	pipes):					
Observation Notes: Feature continues out	side surve	y corrido	or.								



sira004p_N (downstream)



sira004p_S (upstream)



sira004p_W (across)

Water body Data Si	1001							
Description								
Project Name:				Date:			Waterbody S	urvey ID:
Line 5 Relocation Project				2019-10-18			sira005i	
State:	County	y/Parish:		USGS Wate	rbody Name:			
WI	Iron			UNT to Tyle	Forks			
Company:	Crew I	lember Initial	ls:	Latitude:			Longitude:	
Enbridge	BRG/E	OGL		46.413370			-90.516012	
Survey Type: ☐ C	enterline	☐ Re-Route	•	Access Road	□Facility	□Other		
Waterbody Type: ☐ R	liver	✓ Stream		Ditch	☐ Swale	☐ Canal		Other
Water Appearance: ☐ N (check one)	lo Water	☑ Clear		∃Turbid	☐Sheen on Surface	□Surfac	e Scum □A	lgal Mats □Other
Existing Condition ^a :	lighly Function	onal Stream	✓ Moderate	ely Functional S		Functionally	Impaired Strea	ım
Feature Description: ☐ N	latural	☐ Artificial,	man-made 🗜	Manipulated				
Flow Regime:	phemeral	✓ Intermitte	ent 🗆	Perennial	☐ Connect Swale	ing		
Sinuosity within Survey Corridor:	traight	✓ Meander	ing					
Measurements								
Depth of Water: 0.3 ft.	N/A□	Unknown	☐ Water Edg	ge to Water Ed	ge: <u>4</u> ft.	N/A□	OHWM Width	: <u>4</u> ft.
OHWM Indicator: (check all that apply)	☐ Clear line	on bank	□Shelving	□Wrested v	egetation	☑ Scouring		□Water staining
(check all that apply)	☑Bent, mat missing veg		□Wrack line	□Litter and o	debris	□Abrupt plan	t community	☐Soil characteristic change
Dominant Substrate: (check all that apply)	☐ Bedrock	☐ Bould	ler □ Cob	oble 🗆 C	Gravel	☑ Sand	□ Silt/ clay	□ Organic
Observations								
Riparian Zone Present:	☑ Yes	□ No						
Vegetation Layers: (check all that apply)	☑ Trees	☑ Sa	plings/Shrubs	☑ Herbs				
Dominant Bank Vegetatio Ulmus americana, Fraxinus	o n <i>(list)</i> : s nigra, Betul	a alleghaniens	sis, Carex crinit	ta, Glyceria stria	ata.			
Aquatic Habitats (ex: subme Riffles.	rged or emerged	aquatic vegetation	, overhanging banks	s/roots, leaf packs, la	arge submerged w	ood, riffles, deep po	ools, etc.):	
Aquatic Organisms Obse None.	rved (list):							
Disturbances (ex: livestock Runoff from gravel road, cu		e in waterbody,	waste discharge	pipes):				
Observation Notes: The stream eventually feed	ds into a pere	nnial river (sir	a004p) outside	of the survey a	rea.			



sira005i_E (across)



sira005i_N (upstream)



sira005i_S (downstream)

Waterbody Date	JIICEL										
Description											
Project Name:						Date:			Waterbod	ly Survey ID:	
Line 5 Relocation Proj	ect					2019-10-18	3		sira006i		
State:		County/	Parish:			USGS Wat	erbody Nam	ie:			
WI		Iron				UNT to Tyl	er Forks				
Company:		Crew Me	ember Ini	tials:		Latitude:			Longitude	9 :	
Enbridge		BRG/JS	W			46.413442			-90.51570	9	
Survey Type: (check one)	☐ Centerl	ine	☐ Re-Ro	ute	V	Access Road	□Facility	□Othei	•		
Waterbody Type: (check one)	□ River		☐ Strean	n	V	Ditch	☐ Swale	☐ Cana	al	☐ Other	
Water Appearance: (check one)	☐ No Wa	ter	✓ Clear]Turbid	□Sheen o	on □Surfa	ce Scum	□Algal Mats	□Other
Existing Condition a: (check one)	□ Highly	Function	al Stream		Moderate	ely Functional	Surface Stream	⊈ Functionally	Impaired S	Stream	
Feature Description:	☐ Natural		✓ Artificia	al, man-r	made \square	Manipulated					
Flow Regime:	□ Ephem	eral	✓ Interm	ittent		Perennial	☐ Conne	ecting			
(check one) Sinuosity within Survey Corridor: (check one)	☑ Straigh	nt	☐ Meand	dering			Swale				
Measurements											
Depth of Water: 0.2	ft.	N/A□	Unknov	wn 🗆 🛛 V	Vater Edg	ge to Water E	dge: <u>3</u> f	ft. N/A 🗆	онwм w	idth: <u>4</u>	ft.
OHWM Indicator:	□ CI	ear line	on bank	□She	lving	□Wrested	vegetation	Scouring		□Water	r staining
(check all that apply)		ent, matte ing veget			ick line	□Litter and	Ü	□Abrupt pla	nt communi		haracteristic
Dominant Substrate: (check all that apply)	□В€	edrock	□ Во	ulder	□ Cob	ble 🗆	Gravel	□ Sand	☑ Silt/ o	clay	Organic
Observations											
Riparian Zone Preser (check one)	it: 🗆 Ye	es	V	No							
Vegetation Layers: (check all that apply)	□ Tr	ees		Saplings	/Shrubs	☑ Herb	S				
Dominant Bank Vege Fraxinus nigra, Rubus	tation (list idaeus.	·):									
Aquatic Habitats (ex: None.	submerged or	emerged ac	quatic vegeta	tion, overha	anging banks	i/roots, leaf packs,	large submerged	d wood, riffles, deep	pools, etc.):		
Aquatic Organisms C None.	bserved ((list):									
Disturbances (ex: live Receives runoff from (in waterboo	dy, waste	discharge	pipes):					
Observation Notes: Feature flows into sira	005i and u	ıltimately	enters Ty	ler Forks	s (sira004	p) outside the	survey area				



sira006i_E (upstream)



sira006i_S (across)



sira006i_W (downstream)

Waterbody Data Si	icci							
Description								
Project Name:				Date:			Waterbody S	urvey ID:
Line 5 Relocation Project				2019-10-18			sira007i	
State:	Count	y/Parish:		USGS Wate	rbody Name:			
WI	Iron			None				
Company:	Crew I	Member Initia	ls:	Latitude:			Longitude:	
Enbridge	BRG/[OGL		46.414190			-90.510960	
Survey Type: ☐ C	enterline	☐ Re-Route		Access Road	□Facility	□Other		
Waterbody Type: ☐ F	liver	☑ Stream		Ditch	☐ Swale	☐ Canal		Other
Water Appearance: D N (check one)	lo Water	☐ Clear	V	Turbid	☐Sheen on Surface	□Surfac	e Scum □A	lgal Mats □Other
Existing Condition ^a :	lighly Function	onal Stream	✓ Moderate	ely Functional S		Functionally	Impaired Strea	am
Feature Description: (check one)	latural	✓ Artificial,	man-made \square	Manipulated				
Flow Regime:	phemeral	✓ Intermitte	ent 🗆	Perennial	☐ Connect Swale	ing		
Sinuosity within Survey Corridor:	traight	 Meander	ing					
Description Notes: The stream originates from wira039s.	ı a culvert un	der a gravel ro	oad, and runs th	nrough the edge	e of a hardwo	od swamp (wir	a040f). Featur	e discharges into wetland
Measurements								
Depth of Water: 1.2 ft.	N/A□	Unknown	□ Water Edg	ge to Water Ed	ge: 7 ft.	N/A□	OHWM Width	n:7 ft.
OHWM Indicator: (check all that apply)	☐ Clear line	e on bank	□Shelving	□Wrested v	egetation	☑ Scouring		□Water staining
(onoon an anat appry)	☑Bent, mat missing veg		□Wrack line	□Litter and	debris	□Abrupt plan change	t community	□Soil characteristic change
Dominant Substrate: (check all that apply)	☐ Bedrock	☐ Bould	ler □ Cob	ble 🗆 G	Gravel	☑ Sand	□ Silt/ clay	□ Organic
Observations								
Riparian Zone Present:	□ Yes	☑ No	<u> </u>					
Vegetation Layers: (check all that apply)	✓ Trees	☑ Sa	plings/Shrubs	☑ Herbs				
Dominant Bank Vegetation Fraxinus nigra, Acer rubrui	o n <i>(list)</i> : n, Carex bro	moides, Solida	ago gigantea, C	arex crinita, Ju	ncus effusus,	Calamagrostis	canadensis.	
Aquatic Habitats (ex: subme Open water.	rged or emerged	aquatic vegetation	ı, overhanging banks	/roots, leaf packs, la	rge submerged w	ood, riffles, deep po	pols, etc.):	
Aquatic Organisms Obse None.	rved (list):							
Disturbances (ex: livestock Runoff from gravel road.	access, manu	re in waterbody,	waste discharge	pipes):				
Observation Notes: The feature is of diminishe	d quality due	to the intersec	cting road. The	wetland feeds	the stream wi	th some water		



sira007i_E (upstream)



sira007i_S (across)



sira007i_W (downstream)

Open Waterbody Data Sheet

Open waterboo	y Data	Sneed							
Description									
Project Name:					Date:			Waterbody S	urvey ID:
Line 5 Relocation Proje	ect				2019-09-23			oirb001	
State:		County/	Parish:		USGS Water	body Name	:	l.	
WI		Iron			None				
Company:		Crew M	ember Initials:		Latitude:			Longitude:	
Enbridge		MAL/SA	AM		46.422628			-90.515690	
Survey Type: (check one)	✓ Centerl	ine	☐ Re-Route		Access Road	□Facility	□Other		
Waterbody Type: (check one)	☐ Stock F	ond	☐ Natural Pond		Fishing Pond	□ Lake	✓ Other		
Water Appearance: (check one)	□ No Wa	ter	✓ Clear	□Т	urbid	☐Sheen or Surface	□Surfac	e Scum	lgal Mats □Other
Feature Quality: (check one)	☐ High		✓ Moderate		Low				
Feature Description: (check one)	✓ Natural		☐ Artificial, man-	made 🗆 I	Manipulated				
Oxbow associated with	n Tyler Foi	ks. Rece	ives water from si	irb013p.					
Measurements									
Depth of Water: 1	ft.	N/A□	Unknown□						
OHWM Indicator: (check all that apply)	☑ CI	ear line	on bank □She	elving	□Wrested ve	egetation	□Scouring		□Water staining
		nt, matte ing vege		ack line	☑ Litter and o	lebris	□Abrupt plan change	t community	☐Soil characteristic change
Dominant Substrate: (check all that apply)	□Ве	edrock	☐ Boulder	☑ Cobbl	le 🗹 G	iravel	□ Sand	I Silt/ clay	□ Organic
Observations									
Riparian Zone Presen (check one)	t: 🗆 Ye	es	☑ No						
Vegetation Layers: (check all that apply)	☑ Tr		☑ Saplings		✓ Herbs				
Dominant Bank Veget Acer saccharinum, Ace	tation (lister rubrum,): Tilia am	ericana, Fraxinus	nigra, Athyr	ium angustun	n, Onoclea se	ensibilis.		
Aquatic Habitats (ex: s Open water.	ubmerged or	emerged a	quatic vegetation, overh	anging banks/ro	oots, leaf packs, la	rge submerged v	wood, riffles, deep p	ools, etc.):	
Aquatic Organisms O Water striders, frogs.	bserved	(list):							
Disturbances (ex: lives The connected waterbo	stock acces odies sirb(s, manure)12p and	in waterbody, waste I sirb013p are influ	discharge pi uenced by b	pes): eaver activity				
Observation Notes: None.					_				



oirb001_E



oirb001_N



oirb001_S

Traterseay Batt	. 011000									
Description										
Project Name:						Date:			Waterbody St	ırvey ID:
Line 5 Relocation Proj	ect					2019-09-23			sirb013p	
State:		County/	/Parish:			USGS Wate	erbody Name) :		
WI		Iron				UNT to Tyle	er Forks			
Company:		Crew M	ember Ini	tials:		Latitude:			Longitude:	
Enbridge		MAL/SA	λM			46.423075			-90.515768	
Survey Type: (check one)	☑ Centerl	ine	☐ Re-Ro	ute		Access Road	□Facility	□Other		
'	□ River		☑ Stream	n		Ditch	☐ Swale	☐ Cana		Other
Water Appearance: (check one)	☐ No Wat	er	☑ Clear			Turbid	□Sheen or Surface	n □Surfac	e Scum	gal Mats □Other
Existing Condition a: (check one)	☐ Highly	Function	nal Stream		Moderatel	y Functional	Stream	☐ Functionally	Impaired Strea	m
Feature Description: (check one)	✓ Natural		☐ Artificia			Manipulated				
Flow Regime: (check one)	☐ Ephem	eral	☐ Interm	ittent	V	Perennial	☐ Connection Connection	eting		
Sinuosity within Survey Corridor: (check one)	☐ Straigh	t	✓ Meano	dering						
Measurements										
Depth of Water: 1.5	ft.	N/A□	Unknov	wn 🗆 🛛 V	Nater Edge	e to Water E	dge: <u>15</u> ft	. N/A□	OHWM Width	: <u>15</u> ft.
OHWM Indicator:	☑ CI	ear line	on bank	□She	lving	□Wrested	/egetation	□Scouring		□Water staining
(check all that apply)	☑ Be missi	ent, matte ing vege	ed, or etation	□Wra	ack line	☑ Litter and	debris	□Abrupt plan	t community	☐Soil characteristic change
Dominant Substrate: (check all that apply)	□ Ве	edrock	□ Во	ulder	 Cobb	ole 🗹	Gravel	☐ Sand	坚 Silt/ clay	□ Organic
Observations										
Riparian Zone Preser	nt: 🗆 Ye	s	V 1	No						
Vegetation Layers: (check all that apply)	☑ Tr	ees	V :	Saplings	s/Shrubs	☑ Herbs	3			
Dominant Bank Vege Acer saccharinum, Fra	tation (list axinus nigr): a, Onocl	lea sensibi	ilis, Athy	rium filix-fe	emina, Symph	yotrichum lat	eriflorum.		
Aquatic Habitats (ex: 9 Flowing water, woody	submerged or debris.	emerged a	quatic vegeta	tion, overh	anging banks/r	roots, leaf packs,	large submerged	wood, riffles, deep p	ools, etc.):	
Aquatic Organisms O Water striders, frogs.	bserved (Tist):								
Disturbances (ex: live: None.	stock acces	s, manure	in waterboo	dy, waste	discharge p	oipes):				
Observation Notes: None.										



sirb013p_E (upstream)



sirb013p_S (across)



sirb013p_W (downstream)

Waterbody Date	Jileet										
Description											
Project Name:						Date:			Waterbody	Survey ID:	
Line 5 Relocation Proj	ect					2019-09-23			sirb012p		
State:		County/I	Parish:			USGS Water	body Name:				
WI		Iron				Tyler Forks					
Company:		Crew Me	ember Init	tials:		Latitude:			Longitude:		
Enbridge		MAL/SA	M			46.423174			-90.516738		
Survey Type: (check one)	✓ Centerl	ine	☐ Re-Ro	ute		Access Road	□Facility	□Other			
Waterbody Type: (check one)	☑ River		☐ Stream	ı		Ditch	☐ Swale	☐ Canal		Other	
Water Appearance:	☐ No Wa	ter	✓ Clear		□Т	urbid	□Sheen on Surface	□Surfac	e Scum 🛚	Algal Mats	□Other
Existing Condition ^a :	□ Highly	Function	al Stream	V	Moderately	/ Functional S		Functionally	Impaired Stre	eam	
Feature Description:	✓ Natural		☐ Artificia	al, man-m	iade 🗆 l	Manipulated					
Flow Regime:	☐ Ephem	eral	☐ Interm	ittent	V	Perennial	☐ Connect	ing			
Sinuosity within Survey Corridor: (check one)	☐ Straigh	nt	☑ Meand	dering			Owaic				
Measurements											
Depth of Water: 2	ft.	N/A□	Unknov	wn 🗆 🛮 W	ater Edge	to Water Ed	ge: <u>50</u> ft.	N/A□	OHWM Wid	th: <u>50</u> ft.	
OHWM Indicator:	□ Cl	ear line o	on bank	☑ Shelv	ving	□Wrested ve	egetation	□Scouring		☑ Water st	taining
(check all that apply)		nt, matte		□Wrac	k line	☑ Litter and o	lebris	□Abrupt plan change	t community	□Soil cha change	racteristic
Dominant Substrate: (check all that apply)	□Ве	edrock	□ Во	ulder	☑ Cobb	le 🗹 G	ravel	□ Sand	I Silt/ cla	ıy 🗆 C	rganic
Observations											
Riparian Zone Preser	nt: 🗹 Ye	es	1 🗆	No							
Vegetation Layers: (check all that apply)	☑ Tr	ees	v (Saplings/	Shrubs	✓ Herbs					
Dominant Bank Vege Acer saccharinum, Ac	tation (list er sacchar	t): rum, Tilia	american	a, Alnus i	ncana, At	hyrium filix-fei	nina.				
Aquatic Habitats (ex: s Flowing water.	submerged or	emerged aq	quatic vegetal	tion, overhar	nging banks/ro	oots, leaf packs, la	rge submerged w	ood, riffles, deep po	ools, etc.):		
Aquatic Organisms C Dragonflies, frogs, gar	Observed (ter snake.	(list):									
Disturbances (ex: live The feature has been	stock acces influenced	s, manure by beave	in waterboo er activity.	dy, waste d	lischarge pi	pes):					
Observation Notes: None.											



sirb012p_E (upstream)



sirb012p_N (across)



sirb012p_W (downstream)

Traterious Butt	. 0001										
Description											
Project Name:						Date:			Waterbody S	urvey ID:	
Line 5 Relocation Proj	ect					2019-09-23			sirc005e		
State:		County/F	arish:			USGS Wate	rbody Name	e :			
WI		Iron				UNT to Tyle	r Forks				
Company:		Crew Me	mber Init	ials:		Latitude:			Longitude:		
Enbridge		BRG/JSV	Ν			46.423736			-90.516121		
Survey Type: (check one)	☑ Centerl	ine	☐ Re-Rou	ute		Access Road	□Facility	□Other			
Waterbody Type: (check one)	□ River		☑ Stream	1		Ditch	☐ Swale	☐ Cana		Other	
Water Appearance: (check one)	☐ No Wat	er .	□ Clear		VT	Turbid	☐Sheen o Surface	n □Surfac	e Scum □A	lgal Mats	□Other
Existing Condition ^a : (check one)	☑ Highly		al Stream	□М	loderately	Functional S		☐ Functionally	Impaired Strea	ım	
Feature Description: (check one)			☐ Artificia			Manipulated					
Flow Regime: (check one)	☑ Ephem	eral [☐ Intermi	ittent		Perennial	☐ Connection Connection	cting			
Sinuosity within Survey Corridor: (check one)	□ Straigh	t I	✓ Meand	ering							
Description Notes: Water is absent along wirc022f.	a majority	of the str	eam, but s	some poc	kets of st	ationary wate	r were obse	rved at the time	of survey. Wa	terbody is a	associated with
Measurements											
Depth of Water: 0.2	_ ft.	N/A□	Unknow	vn 🗆 Wa	ater Edge	to Water Ed	ge: <u>1</u> ft	t. N/A□	OHWM Width	: <u>6</u> f	t.
OHWM Indicator: (check all that apply)	□ CI	ear line o	n bank	□Shelvi	ing	□Wrested v	egetation	☑ Scouring		□Water	staining
(oncon an anatappy)		nt, matted		□Wrack	k line	□Litter and	debris	□Abrupt plan	t community	□Soil cha	aracteristic
Dominant Substrate: (check all that apply)		edrock	□ Воι	ulder	□ Cobb	le 🗆 (Gravel	□ Sand	坚 Silt/ clay		Organic
Observations											
Riparian Zone Presen	t: 🗹 Ye	:S	□ N	No							
Vegetation Layers: (check all that apply)	☑ Tr	es	Ø 9	Saplings/S	Shrubs	✓ Herbs					
Dominant Bank Vege Acer saccharum, Tilia	tation (list americana): , Betula a	alleghanie	nsis, Frax	kinus nigra	a, Lycopus ur	niflorus, Athy	rium angustum,	, Carex gracillin	ma.	
Aquatic Habitats (ex: s Overhanging vegetation	submerged or DN.	emerged aqı	uatic vegetati	ion, overhanç	ging banks/ro	oots, leaf packs, la	arge submerged	wood, riffles, deep p	ools, etc.):		
Aquatic Organisms O Frogs.	bserved (list):									
Disturbances (ex: lives None.	stock access	s, manure i	n waterbod	ly, waste di	ischarge pi	ipes):					
Observation Notes: The feature likely only	carries flo	wing wate	∍r after flo	oding/hea	avy rain e	vents, and is	erosional in	nature.			



sirc005e_E (downstream)



sirc005e_S (across)



sirc005e_W (upstream)

Waterbody Date	Officet									
Description										
Project Name:						Date:			Waterbody	Survey ID:
Line 5 Relocation Proj	ect					2019-09-23			sirc004e	
State:		County/I	Parish:			USGS Wate	body Name	:		
WI		Iron				UNT to Tyle	Forks			
Company:		Crew Me	ember Ini	tials:		Latitude:			Longitude:	
Enbridge		BRG/JS	W			46.424390			-90.515937	
Survey Type: (check one)	✓ Center	line	☐ Re-Ro	ute		Access Road	□Facility	□Other		
Waterbody Type: (check one)	□ River		☑ Strean	า		Ditch	☐ Swale	☐ Canal		Other
Water Appearance: (check one)	☑ No Wa	ter	☐ Clear			Γurbid	☐Sheen on Surface	ı □Surfac	e Scum 🔲	Algal Mats □ Other
Existing Condition a: (check one)	✓ Highly	Function	al Stream	□ Mod	derately	y Functional S		☐ Functionally	Impaired Stre	eam
Feature Description: (check one)	✓ Natura		☐ Artificia	al, man-mad	е 🗆	Manipulated				
Flow Regime: (check one)	☑ Ephem	eral	☐ Interm	ittent		Perennial	☐ Connection Connection	ting		
Sinuosity within Survey Corridor: (check one)	□ Straigh	nt	✓ Mean	lering						
The stream is an erosi	ional featu	re that flo	ows from v	vetland wirc()21f int	to wirc022f.				
Measurements										
Depth of Water:	ft.	N/A 🗹	Unknov	wn□ Wate	r Edge	e to Water Ed	ge: ft.	N/A 🗹	OHWM Wid	th: <u>2</u> ft.
OHWM Indicator: (check all that apply)	□С	lear line c	n bank	□Shelving]	□Wrested ve	egetation	☑ Scouring		□Water staining
(спеск ан тасарруу)		ent, matte ing veget		□Wrack li	ne	□Litter and o	lebris	□Abrupt plan	t community	☐Soil characteristic change
Dominant Substrate: (check all that apply)	□ Ве	edrock	□ Во	ulder	Cobb	ile □ G	ravel	□ Sand	⊻ Silt/ cla	y 🗆 Organic
Observations										
Riparian Zone Presen	nt: 🗆 Ye	es		No						
Vegetation Layers: (check all that apply)	☑ Tr	ees		Saplings/Shr	ubs	☑ Herbs				
Dominant Bank Vege Fraxinus nigra, Acer s	tation (list	t) : , Prunus s	serotina, [Oryopteris int	termed	lia.				
Aquatic Habitats (ex: s	submerged or	emerged aq	uatic vegeta	tion, overhanginç	g banks/r	oots, leaf packs, la	rge submerged v	vood, riffles, deep po	ools, etc.):	
Aquatic Organisms C None.	bserved)	(list):								
Disturbances (ex: lives None.	stock acces	s, manure	in waterbo	dy, waste discl	harge pi	ipes):				
Observation Notes: The feature is erosion:	al and has	steep ba	ınks.							



sirc004e_E (upstream)



sirc004e_S (across)



sirc004e_W (downstream)

Trate: Beay Batt	2 011000										
Description											
Project Name:						Date:			Waterbody Si	ırvey ID:	
Line 5 Relocation Pro	ect					2019-09-23			sirc003e		
State:		County/l	Parish:			USGS Wate	rbody Name	e :			
WI		Iron				UNT to Tyle	r Forks				
Company:		Crew Me	ember Init	tials:		Latitude:			Longitude:		
Enbridge		BRG/JS	W			46.424449			-90.515998		
Survey Type: (check one)	☑ Centerle	ine	☐ Re-Ro	ute		Access Road	□Facility	□Other			
Waterbody Type: (check one)	□ River		✓ Stream	า		Ditch	☐ Swale	☐ Cana		Other	
Water Appearance: (check one)	☑ No Wa	ler	☐ Clear			Turbid	□Sheen o Surface	n □Surfac	e Scum	gal Mats	□Other
Existing Condition ^a : (check one)	☑ Highly	Function	nal Stream		Moderate	ly Functional S		☐ Functionally	Impaired Strea	m	
Feature Description: (check one)						Manipulated					
Flow Regime: (check one)	☑ Ephem	eral	☐ Interm	ittent		Perennial	☐ Conne Swale	cting			
Sinuosity within Survey Corridor: (check one)	□ Straigh	t	✓ Meand	dering							
Measurements											
Depth of Water:	ft.	N/A 🗹	Unknov	wn 🗆 🛛 V	Vater Edg	e to Water Ed	lge: fi	t. N/A🗹	OHWM Width	: <u>2</u> ft	i.
OHWM Indicator: (check all that apply)	□ Cl	ear line o	on bank	□She	lving	□Wrested v	egetation	✓ Scouring		□Waters	staining
(orlook all that apply)	⊻ Be miss	ent, matte ing veget	d, or tation	□Wra	ick line	□Litter and	debris	□Abrupt plan	t community	□Soil cha	aracteristic
Dominant Substrate: (check all that apply)		edrock	□ Вог	ulder	□ Cobl	ble 🗆 (Gravel	□ Sand	☑ Silt/ clay		Organic
Observations											
Riparian Zone Preser	nt: 🗆 Ye	es		No							
Vegetation Layers: (check all that apply)	☑ Tr	ees	V S	Saplings	/Shrubs	☑ Herbs	;				
Dominant Bank Vege Fraxinus nigra, Acer s	tation (list accharum,): Dryopte	ris interme	edia, Pru	ınus seroti	ina.					
Aquatic Habitats (ex: None.	submerged or	emerged ac	quatic vegetat	tion, overha	anging banks/	/roots, leaf packs, l	arge submerged	wood, riffles, deep p	ools, etc.):		
Aquatic Organisms (None.)bserved (Tist):									
Disturbances (ex: live None.	stock acces	s, manure	in waterboo	dy, waste	discharge μ	pipes):					
Observation Notes: The feature is somew	hat erosior	al, and li	kely only o	carries w	vater for a	short period c	f time follow	ing rain events.			



sirc003e_E (upstream)



sirc003e_N (across)



sirc003e_W (downstream)

APPENDIX F

Waterbody Data Sheets
Part 23 of 24

Trator Soup Bat	4 011000											
Description												
Project Name:						D	ate:			Waterbody \$	Survey ID:	
Line 5 Relocation Pro	ject					2	019-09-21			sirc002p		
State:		County	/Parish:			U	SGS Water	body Name	:			
WI		Iron				V	ogue Creel					
Company:		Crew M	ember Ini	tials:		Li	atitude:			Longitude:		
Enbridge		BRG/JS	SW			4	6.421019			-90.504350		
Survey Type: (check one)	☐ Centerl	ine	☐ Re-Ro	ute		Acc	cess Road	□Facility	□Other			
Waterbody Type: (check one)	□ River		✓ Stream	n		□ Dit	tch	☐ Swale	☐ Cana	al 🗆	Other	
Water Appearance: (check one)	□ No Wa	ter	☑ Clear			∃Tur	rbid	☐Sheen on	□Surfa	ce Scum 🗆	Algal Mats	□Other
Existing Condition ^a : (check one)	☑ Highly	Function	nal Stream	n 🗆	Moderat	ely F	unctional S	Surface tream	☐ Functionally	Impaired Stre	am	
Feature Description: (check one)	✓ Natural		☐ Artifici	al, man-			anipulated					
Flow Regime: (check one)	☐ Ephem	eral	☐ Interm	ittent		☑ Pe	erennial	☐ Connection Connection	ting			
Sinuosity within Survey Corridor: (check one)	□ Straigh	it	✓ Mean	dering				<u> </u>				
The stream is a high- placed over the stream		ure, but	receives s	ome run	on nom t	ine o	ompacied s	ons or the tra	iii rumiing acid	oss II. A SIIIaii	wooden blic	ige nas been
Measurements												
Depth of Water: 1	ft.	N/A□	Unknov	wn□	Nater Ed	lge to	o Water Ed	je: <u>10</u> ft.	N/A 🗆	OHWM Widt	: h : <u>10</u> f	t.
												
OHWM Indicator: (check all that apply)	⊔ Cl	ear line	on bank	□She	elving	L	∃Wrested ve	getation	 Scouring		□Waters	staining
		nt, matte ing vege		□Wra	ack line		Litter and o	ebris	□Abrupt plai change	nt community	□Soil cha change	aracteristic
Dominant Substrate: (check all that apply)	□ Ве	edrock	□ Во	oulder	☑ Col	bble	□G	ravel	☑ Sand	☐ Silt/ cla	у 🗆 (Organic
Observations												
Riparian Zone Preser (check one)	nt: 🗆 Ye	es	V	No								
Vegetation Layers: (check all that apply)	☑ Tr	ees		Saplings	s/Shrubs		✓ Herbs					
Dominant Bank Vege Acer saccharum, Ulm	etation (list us america) : ina, Betu	ıla allegha	niensis,	Fraxinus	nigra	a, Alnus inc	ana, Carex o	rinita, Scirpus	hattorianus, C	Glyceria stria	nta.
Aquatic Habitats (ex: Pools, overhanging ve	submerged or egetation.	emerged a	quatic vegeta	ition, overh	anging bank	ks/roots	s, leaf packs, la	ge submerged w	/ood, riffles, deep μ	pools, etc.):		
Aquatic Organisms (None.	Observed ((list):										
Disturbances (ex: live Runoff from intersecti	stock acces ng unpave	s, manure d path.	in waterbo	dy, waste	discharge	e pipe	es):					
Observation Notes: Banks have been sco	ured by erd	osion and	d are appr	oximatel	ly 1 foot h	high i	in places.					



sirc002p_N (downstream)



sirc002p_S (upstream)



sirc002p_W (across)

Waterbody Data Sil	CCI								
Description									
Project Name:				Date:			Waterbody Si	urvey ID:	
Line 5 Relocation Project				2019-10-18			sird018p		
State:	County	/Parish:		USGS Wate	body Name:				
WI	Iron			Vogue Creel	(
Company:	Crew M	ember Initials	s:	Latitude:			Longitude:		
Enbridge	MAL/AC	3G		46.418982			-90.501244		
Survey Type: © Ce (check one)	enterline	☐ Re-Route		Access Road	□Facility	□Other			
Waterbody Type: ☐ Riv	ver	☑ Stream		Ditch	☐ Swale	☐ Canal		Other	
Water Appearance: (check one)	Water	✓ Clear		Turbid	☐Sheen on Surface	□Surfac	e Scum □A	lgal Mats □Other	
Existing Condition ^a : Hi	ghly Function	nal Stream	✓ Moderately	y Functional S		Functionally	Impaired Strea	ım	
Feature Description: (check one)	itural	☐ Artificial, n	nan-made 🗹	Manipulated					
Flow Regime:	hemeral	☐ Intermitter	nt 🗹	Perennial	☐ Connect Swale	ing			
Sinuosity within Strucey Corridor:	raight	✓ Meandering	ng						
Measurements									
Depth of Water: 0.5 ft.	N/A□	Unknown	Water Edge	e to Water Ed	ge: <u>6</u> ft.	N/A□	OHWM Width	: <u>6</u> ft.	
OHWM Indicator: (check all that apply)	☐ Clear line	on bank 🕑	Shelving	□Wrested ve	egetation	□Scouring		☑ Water staining	
	□Bent, matte missing vege		Wrack line	☑ Litter and o	lebris	□Abrupt plan change	t community	☐Soil characteristic change	
Dominant Substrate: (check all that apply)	Bedrock	☐ Boulde	er 🗆 Cobb	ole 🗹 G	iravel	☐ Sand	☐ Silt/ clay	□ Organic	
Observations									
	⊻ Yes	□ No							
Vegetation Layers: (check all that apply)	Trees	☑ Sap	lings/Shrubs	☑ Herbs					
Dominant Bank Vegetation Alnus incana, Calamgrostis	<i>(list)</i> : canadensis.								
Aquatic Habitats (ex: submeron Riffles, overhanging vegetal	lion.	quatic vegetation,	overhanging banks/r	oots, leaf packs, la	rge submerged w	ood, riffles, deep po	ools, etc.):		
Aquatic Organisms Observing.	ved (list):								
Disturbances (ex: livestock a The surrounding area was r			vaste discharge p	ipes):					
Observation Notes: The feature has densely veg	getated bank	s and has som	ne riprap.						





sird018p_SE (upstream)



sird018p_W (downstream)

Waterbody Date	a Silect										
Description											
Project Name:						Date:			Waterbody	Survey ID:	
Line 5 Relocation Pro	ect					2019-10-18			sird017e		
State:		County/	Parish:			USGS Wate	rbody Name	<u> </u>			
WI		Iron				None					
Company:		Crew Me	ember Init	ials:		Latitude:			Longitude:		
Enbridge		MAL/AG	G G			46.424387			-90.494029)	
Survey Type: (check one)	☑ Centerle	ine	☐ Re-Ro	ute		Access Road	□Facility	□Other			
Waterbody Type:	□ River		☐ Stream	1	V	Ditch	☐ Swale	☐ Canal		Other	
Water Appearance: (check one)	☑ No Wa	ter	☐ Clear		□1	Turbid	☐Sheen on Surface	Surfac	e Scum	∃Algal Mats	□Other
Existing Condition a: (check one)	☐ Highly	Function	al Stream	□ N	/loderately	y Functional S		Functionally	Impaired Str	ream	
Feature Description: (check one)	☐ Natural		☐ Artificia	al, man-m	ade 🗹	Manipulated					
Flow Regime: (check one)	E Ephem	eral	☐ Interm	ittent		Perennial	☐ Connect	ting			
Sinuosity within Survey Corridor: (check one)	☑ Straigh	nt	□ Meand	lering			Owalc				
No water observed at	the time of	r survey.	The featur	re originat	tes at the	edge of an ac	cess road an	d dissipates as	s it enters th	e forest to the	e west.
Measurements											
Depth of Water:	ft.	N/A Ľ	Unknov	vn 🗆 🛮 W a	ater Edge	to Water Ed	ge: ft.	N/A 🗹	OHWM Wid	dth: <u>6</u> f	t.
OHWM Indicator: (check all that apply)	□ Cl	ear line o	on bank	□Shelv	/ing	□Wrested v	egetation	□Scouring		□Water	staining
	miss	ent, matte ing veget		□Wrac	k line	☑ Litter and o	debris	□Abrupt plan change	t community	/ □Soil cha change	aracteristic
Dominant Substrate: (check all that apply)	□ Ве	edrock	□ Во	ulder	☐ Cobb	le 🗆 G	Gravel	☐ Sand	I Silt/ cla	ay 🗆 (Organic
Observations											
Riparian Zone Preser (check one)	nt: 🗆 Ye	es	I	No							
Vegetation Layers: (check all that apply)	☑ Tr	ees	v (Saplings/S	Shrubs	☑ Herbs					
Dominant Bank Vege Acer saccharum, Tilia	tation (list americana	ʻ) : a, Fraxinu	us nigra, C	arex crini	ita, Athyriu	um filix-femina	1.				
Aquatic Habitats (ex: None.	submerged or	emerged ac	quatic vegetat	ion, overhan	nging banks/ro	oots, leaf packs, la	rge submerged w	ood, riffles, deep po	ools, etc.):		
Aquatic Organisms (None.	Observed ((list):									
Disturbances (ex: live The banks of the feat	stock acces ure have be	s, manure een erode	in waterboo ed and the	dy, waste d margins	lischarge pi of the wa	ipes): terbody have	been logged	recently.			
Observation Notes: The waterbody receiv	es water fr	om the w	etland to t	he east (v	wird040f).	The surround	ling buffer ha	s been recently	y logged.		



sird017e_E (upstream)



sird017e_N (across)



sird017e_W (downstream)

valerbody bata Si	icci								
Description									
Project Name:				Date:			Waterbody \$	Survey ID:	
Line 5 Relocation Project				2019-09-16			sirc001e		
State:	Count	y/Parish:		USGS Wate	rbody Name	:			
WI	Iron			None					
Company:	Crew	Member Initia	ıls:	Latitude:			Longitude:		
Enbridge	JSW/E	BRG		46.434834			-90.498519		
Survey Type: (check one)	enterline	☐ Re-Rout	e 🗆	Access Road	□Facility	□Other			
Waterbody Type: ☐ R	iver	☐ Stream	V	Ditch	☐ Swale	☐ Canal		Other	
Water Appearance: V N (check one)	o Water	☐ Clear]Turbid	☐Sheen on Surface	□Surfac	e Scum □	Algal Mats □Other	
Existing Condition ^a :	lighly Function	onal Stream	☐ Moderate	ely Functional S		Functionally	mpaired Stre	am	
Feature Description: ☐ N (check one)	atural	✓ Artificial,	man-made	Manipulated					
Flow Regime: 🗹 E	phemeral	☐ Intermitt	ent 🗆	Perennial	☐ Connect	ting			
Sinuosity within Survey Corridor: (check one)	traight	☐ Meande	ring						
Description Notes: The feature is a ditch that of	directs surfac	ce flow westwa	ard into a wetlar	nd (wirc001e).					
Measurements	N/A 🗹	L las lass as same	. □ Water Ede	ge to Water Ed	qe: ft.	NI/A 🖼	OHWM Widt	h: 1 ft.	
Depth of Water: ft.	N/A 🗷	Unknowr	ı⊔ vvater Euç	je to water Eu	gen.	IN/A	OHWIN WIGH	11. <u> </u>	
OHWM Indicator: (check all that apply)	Clear line	e on bank	□Shelving	□Wrested v	egetation	☑ Scouring		☐Water staining	
(check all that apply)	☑Bent, matering weg missing veg		□Wrack line	□Litter and	debris	□Abrupt plan change	t community	☐Soil characteristic change	
Dominant Substrate: (check all that apply)	☐ Bedrock	☐ Boul	der 🗆 Cob	ble 🗹 🤇	Gravel	□ Sand	☐ Silt/ cla	y □ Organic	
Observations									
Riparian Zone Present:	□ Yes	☑ No)						
Vegetation Layers: (check all that apply)	☐ Trees	□ Sa	aplings/Shrubs	☑ Herbs					
Dominant Bank Vegetatio Scirpus hattorianus, Agrost	n <i>(list)</i> : tis gigantea,	Solidago giga	intea.						
Aquatic Habitats (ex: submer None.	rged or emerged	l aquatic vegetation	n, overhanging banks	s/roots, leaf packs, la	irge submerged w	ood, riffles, deep po	ools, etc.):		
Aquatic Organisms Obser None.	rved (list):								
Disturbances (ex: livestock Gravel road runoff.	access, manu	re in waterbody	, waste discharge	pipes):					
Observation Notes: None.									



sirc001e_E (upstream)



sirc001e_N (across)



sirc001e_W (downstream)

Waterbody Date	JIICEL										
Description											
Project Name:						Date:			Waterbod	y Survey ID:	
Line 5 Relocation Pro	ect					2019-09-17			sira001i		
State:		County/F	Parish:			USGS Water	body Name	•			
WI		Iron				UNT to Pota	to River				
Company:		Crew Me	ember Init	ials:		Latitude:			Longitude:		
Enbridge		NTT/DG	L			46.443608			-90.49071	0	
Survey Type: (check one)	✓ Centerl	ine	☐ Re-Ro	ute	□A	Access Road	□Facility	□Other			
Waterbody Type:	□ River		✓ Stream	1		Ditch	☐ Swale	☐ Canal]	☐ Other	
Water Appearance: (check one)	☐ No Wa	ter	□ Clear		□Т	urbid	☐Sheen on Surface	☑ Surfac	e Scum [□Algal Mats	□Other
Existing Condition a: (check one)	□ Highly	Function	al Stream	□М	loderately	Functional S		Functionally	Impaired S	tream	
Feature Description:	✓ Natural		☐ Artificia	al, man-ma	ade 🗆 l	Manipulated					
Flow Regime: (check one)	☐ Ephem	eral	✓ Interm	ittent		Perennial	☐ Connect	ting			
Sinuosity within Survey Corridor: (check one)	☐ Straigh	t	☑ Meand	lering			Swale				
Description Notes: The waterbody is an inspeckled alder and Bi		stream th	hat flows t	hrough a l	large fore	sted wetland	complex (wire	a008f). Surrour	nding veget	tation is domir	nated by
Measurements Depth of Water: 2	ft	N/A□	Unknov	wp□ Ws	ater Edge	to Water Ed	ne: 4 ft.	N/A□	OHWM Wi	idth: 6	ft
Depth of Water: 2	IL.	IN/AL	UNKNOV	VII VV	ater Luge	to water Eu	je. <u>4</u> 10.	N/AL	OTIVVIVI VVI	idii. <u>0</u>	ı t.
OHWM Indicator: (check all that apply)	□ CI	ear line o	n bank	□Shelv	ing	□Wrested ve	egetation	□Scouring		□Water	staining
, , , , , , , , , , , , , , , , , , , ,		nt, matte		□Wracł	k line	☑ Litter and o	lebris	☑Abrupt plan change	t communit	ty □Soil ch change	naracteristic
Dominant Substrate: (check all that apply)	□ Ве	edrock	□ Во	ulder	☐ Cobbl	le 🗆 G	ravel	☐ Sand	⊻ Silt/ c	clay 🗹	Organic
Observations											
Riparian Zone Preser	nt: 🗹 Ye	es		No							
Vegetation Layers: (check all that apply)	□ Tr	ees	v (Saplings/S	Shrubs	☑ Herbs					
Dominant Bank Vege Ludwigia palustris, Ca	etation (list irex crinita,): Alnus ind	cana, Car	ex lacustri	is, Cirsiun	n arvense.					
Aquatic Habitats (ex: Pools of water surrou	submerged or nding wate	emerged aq rbody.	uatic vegetat	tion, overhanç	ging banks/ro	oots, leaf packs, la	rge submerged w	ood, riffles, deep po	ools, etc.):		
Aquatic Organisms (Frogs, aquatic inverte	Observed (brates.	(list):									
Disturbances (ex: live Surrounding area has						pes):					
Observation Notes: None.											



sira001i_E (downstream)



sira001i_S (upstream)



sira001i_W (across)

Open Waterbody Data Sheet

Survey Descripti	on											
Project Name:			Waterbo	dy N	ame:			Waterbody ID):		Date:	
Line 5			Unname	d Por	d adjacent to Po	otato River		OIRV001			9/18/2019)
State:	Count	y:			Company:		Crev	/ Member Initi	als:	Photos:	<u> </u>	
Wisconsin	Iron			\	/HB		CS,	CC		Yes		
Tract Number(s):				ı	Nearest Milepos	st:		Associated V	Vetland	ID(s):		
WI-IR-012.001, WI-IR-	012.00	2		(37.60			N/A				
Survey Type: (check one)		☐ Centerlin	е	□Re	e-Route	⊠Access Re	ad	□Other:				
Physical Attribut	-AS											
Waterbody Type:	ck Pond	d □ Natura	al Pond	□ La	ake □ Reserve	oir 🗆 Impou	ındme	nt ⊠ Oxbow	/ □ C	Other:		
Hydrologic Regime:				_								
		ermanently l			Semipermanent	ly Flooded [Seas	sonally Floode	d 🗆	Temporaril	y Flooded	
OHWM Height:		OHWM Indic (check all that ap			☐ Clear on bank	line □Sh	elving	□Wres vegeta		□Sco	uring	□Water staining
<u>N/A</u> ft.		□D		:	i	□1:4						-
		⊔ Bent vegetat		or mi	ssing □Wrack line	∟∟it debri	er and s		ipt plant unity cha	t □Soil ch ange	aracteristic	c cnange
Depth of Water:			Bank	heigh	t (average):			Bank slop	e (aver	age):		
_ <u>>3</u> N/A□	<u>s_</u> ft.				<u>10</u>	_ft.			-	60_degree	s	
Qualitative Attrib	utes											
Water Appearance:			O.		1:1		<u> </u>			0.1		
(check one)	□No w	vater ⊔0	Clear	ΔI	ırbid □Sh on sı		Surfac um	e □Algal mats		Other:		
	□ Bed	rock 🗆 Bo	ulder [□ Co	oble 🗆 Grave	el 🗆 Sand		Silt/ clay ⊠ O	rganic	☐ Other:		
(check all that apply) % of Substrate:		%	%		%	_%%	, -	% <u>10</u>	<u>0</u> %		%	
Width of Riparian Zo	ne:	Vegetative			□ T *****	M C	!!	/Charles		l lawba		
ft.		Avg. DBH	,	nants	□ Trees: ir		piings. . <u>2</u> in	s/Shrubs:	Ш	Herbs in.		
N/A□		(approx.)										
Dominant Bank Vege	tation	(list):										
Corylus americana, Fr			s virginiai	na, Al	bies balsamea							
Aquatic Habitats (ex:	submerge	ed or emerged ag	uatic vegeta	ation, o	verhanging banks/roo	ts, leaf packs, large	submerg	ed wood, riffles, de	ep pools,			
etc.): Submerged and e	-		_				-					
Aquatic Organisms C	Observe	ed (list):										
N/A		,										
T&E Species Observe	ed (list)	:										
N/A	,											
Disturbances (ex: live	stock ac	cess, manure	in waterbo	dy, wa	ste discharge pipe	es):						
N/A												
Waterbody is: (check one)		Natural		□ Art	ificial, man-mad	e □ Ma	nipulat	ed				
Waterbody Quality a: (check one)		□ High			Moderate	□ Low						

Waterbody ID: OIRV001

^a **High Quality:** Natural, natural bank vegetation around entire waterbody; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance by livestock or man.

Moderate Quality: Altered by rip-rap; natural vegetation extends 1/3-1/2 of the active channel width on each side; filtering function or bank vegetation only moderately compromised; banks moderately unstable; water color is cloudy, submerged objects covered with greenish film; moderate odor; minor barriers to fish movement; fair aquatic habitat; minimum disturbance by livestock or man.

Low Quality: Rip rap and channelization excessive; natural vegetation less than 1/3 of the active channel width on each side; lack of regeneration; filtering function severely compromised; banks unstable (eroding); water color is muddy and turbid; obvious pollutants (algal mats, surface scum, surface sheen); heavy odor; severe barriers to fish movement; little to no aquatic habitat; severe disturbance from livestock or man.

Notes:

A review of historic aerials indicates that this is an oxbow pond created from the Potato River. There is a small island present in the middle of the waterbody outside of the study area with *Alnus incana* and *Carex* spp.

An old metal boat is present on far side of waterbody.

Waterbody Sketch (Include north arrow, centerline, distance from centerline, data point locations, survey boundary, and IDs of associated features)

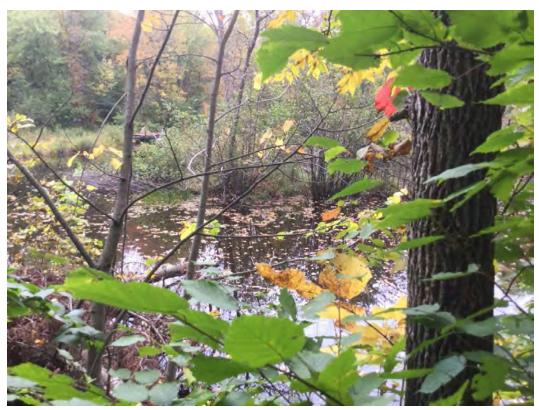


Scale - 1:4,000



Scale - 1:350

Open Waterbody Point Photographs Line 5 Wetland Delineation September 18, 2019, Page 1 of 2



Photograph 1: OIRV001, Northeast



Photograph 2: OIRV001, North

Open Waterbody Point Photographs Line 5 Wetland Delineation September 18, 2019, Page 2 of 2



Photograph 3: OIRV001, Northwest

Linear Waterbody Data Sheet

Survey Description	n										
Project Name:		Waterbo	dy Name	:			W	laterbody ID:			Date:
Line 5 Relocation Projec	t	Unname	d swale, ro	oadside dite	ch		sii	rw002			9/19/2019
State:	County:		Co	ompany:			Crew I	Member Initials	:	Photos:	
WI	Iron		WI	EST			ES/PC			2019091	9_141512115142,
Tract Number(s):			Ne	earest Mile	post			Associated W	etland	2019091 ID(s):	9 141437.
WI-IR-009.000			42					wirw006e		(-)	
Survey Type:											
(check one)		Centerline	□Re-Rou	ıte	⊠Ac	cess Road		□Other:			
Physical Attributes	s										
Stream Classification: (check one)	M F	Ephemeral	□Intermit	ttent	□Pa	erennial					
,		-priemerai		itent		remia					
Waterbody Type: (check one)	River	☐ Stream	☐ Ditch		Canal	☐ Othe	er: Fore	ested swale on r	oadsid	е	
OHWM		M Indicator:								٠.	
Width:ft.	(спеск а	ш шасарру)		☐ Clear lin on bank	e	□Shelvin	g	□Wrested vegetation	L	Scouring	g □Water staining
Height: ft. N/A⊠		☐Bent, matted, vegetation	or missing	□Wrad	ck line	□Litter ar debris	nd	☐ Abrupt plant community cha		∃Soil cha	racteristic change
Width of Waterbody - T Bank to Top of Bank:	op of	Width of Waters to Toe of Slope:		e of Slope		of Waterbo	ody - W	ater Edge to	Depth (Approx.)	of Water	:
<u>1 ft</u> .		-	<u>4</u> ft.		N/A⊠		ft		N/A⊠	_	ft.
Sinuosity:		Water velocity:				height			Bank s	slope	
(check one) ⊠ Straight		(Approx.)				Right:				Right	:
			fps			Left:	<u> </u>			Left	_ <u>35_</u> degrees
□Meanderir	ng	N/A⊠				20.1.	<u>1</u> ft.			_0	35_degrees
Qualitative Attribu	tes							,			
Water Appearance:							,		¬		
(check one)	No water	□Clear	□Turbid	□Sh on su	een ırface	□Sur sc	tace um	□Algal mats	□Othe	r:	
	Bedrock	□ Boulder □	Cobble	☐ Grave	el [Sand	⊠ Silt/ c	clay 🛭 Organi	с 🗆	Other:	
(check all that apply) % of Substrate:	%	%	%		_%	%	<u>60</u> %	40 %		%	
Width of Diversion Zene											
Width of Riparian Zone		egetative Layers: neck all that apply)		□ Trees	:	☐ Sapl	ings/Sh	nrubs:	☐ Her	bs	
ft. N/A⊠		rg. DBH of Domin	nants:	<u>16</u> in.			<u>2_</u> in.	_		_in.	
Dominant Bank Vegeta											
Tsuga Canadensis, Osm	nunda clay	rtonia									
Aquatic Habitats (ex: su	ıbmerged o	r emerged aquatic v	egetation, o	verhanging l	banks/ro	ots, leaf pac	ks, large	submerged wood	, riffles,	deep pool	s):
N/A											
Aquatic Organisms Ob N/A	served (li	(st):									
T&E Species Observed	l (list):										
	()										
Disturbances (ex: livesto	ock access,	manure in waterboo	ly, waste di	scharge pipe	es):						
Roadside vehicle use, so	il compact	tion									
Waterbody is: (check one)		lotural	□ A	iol reserve	ode	NAc!	ılota -l				
Stream Quality ^a :		Natural	⊔ Aftific	ial, man-m	aue		uated				
(check one)	Пн	High	□ Mode	rate		⊠Low					

а	High Quality: Natural channel, natural vegetation extends at least one or two active channel widths on each side; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance by livestock or man.
	Moderate Quality: Altered channel evidenced by rip-rap; natural vegetation extends 1/3-1/2 of the active channel width on each side; filtering function or riparian vegetation only moderately compromised; banks moderately unstable; water color is cloudy, submerged objects covered with greenish film; moderate odor; minor barriers to fish movement; fair aquatic habitat; minimum disturbance by livestock or man.
	Low Quality: Channel is actively down cutting or widening; rip rap and channelization excessive; natural vegetation less than 1/3 of the active channel width on each side; lack of regeneration; filtering function severely compromised; banks unstable (eroding); water color is muddy and turbid; obvious pollutants (algal mats, surface scum, surface sheen); heavy odor; severe barriers to fish movement; little to no aquatic habitat; severe disturbance from livestock or man.
ı	Notes:
-e	ature is roadside swale for drainage purposes. No water, flow, or aquatic habitat present
١	Naterbody Sketch (Include north arrow, centerline, distance from centerline, data point location, survey boundary, and IDs of associated features)

Waterbody ID:

sirw002









Linear Waterbody Data Sheet

Survey Descriptio	n										
Project Name:		Waterb	ody Nar	ne:			W	aterbody ID:			Date:
Line 5 Relocation Project	ct	Unname	ed tributa	ary to Potato	River		si	rw001		9	9/18/2019
State:	County:			Company:			Crew I	Member Initials	i: F	Photos:	
WI	Iron			WEST			ES, PS	2		7310,731	1 7221
	11011						LO, FC				1,7321
Tract Number(s):				Nearest Mile	post			Associated W	etland	ID(s):	
WI-IR-009.000				42.2				wirw001e (em	ergent w	vetland o	n banks)
Survey Type: (check one)		Centerline	□Re-R	Route	⊠Ao	cess Road	t	□Other:			
Physical Attribute	S										
Stream Classification: (check one)											
(crieck one)	⊔₽	phemeral	⊠Inter	mittent	⊔P€	erennial					
Waterbody Type: (check one)	∃River		□ Dite	ch 🗆 (Canal	☐ Oth	er:				
OHWM	OHWN	/ Indicator:									
Width: 6_ft.		ill that apply)		☐ Clear lir on bank	ie	⊠Shelvir	ng			Scouring	g □Water staining
Height: 4_ft. N/A□		☐Bent, matted, vegetation	or missi	ing □Wra	ck line	□Litter a debris	nd	☐ Abrupt plant community cha		Soil cha	racteristic change
Width of Waterbody -	Гор of	Width of Water	body - 1	Γoe of Slope	Width	of Waterb	ody - W	ater Edge to		of Water	:
Bank to Top of Bank:		to Toe of Slope	:			Edge:			(Approx.)		
<u>8</u> ft.			<u>8</u> ft.				<u>3</u> ft.		NI/A 🖂		<u>1</u> ft.
					N/A□				N/A□		
Sinuosity: (check one)		Water velocity: (Approx.)			Bank	height			Bank s	•	
□Straight			0 1 fpc			Right:	<u>3</u> ft.			Right	: _ <u>90_</u> degrees
		_	<u>0.1</u> fps			Left:	<u> </u>			Left	
⊠Meanderi	ng	N/A□					<u>2</u> ft.				60 degrees
Qualitative Attribu	ites										
Water Appearance:											
(check one)	□No water	□Clear	⊠Turb	-	een ırface		ırface cum	□Algal mats	□Other	:	
	Bedrock	☐ Boulder [☐ Cobbl	e 🗵 Grav	el [Sand	□ Silt/ c	clay 🗵 Organ	с 🗆	Other:	
(check all that apply) % of Substrate:	%	%		% <u>60</u> %	_	%	<u>25</u> %	<u>15</u> %	_	%	
Width of Riparian Zone	e: Ve	getative Layers	:								
ft.	· ·	eck all that apply)		□ Trees	:	☐ Sap	olings/Sh	nrubs:	☐ Herb	bs	
N/A□n		rg. DBH of Domi prox.)	nants:	<u>12</u> in.		_	<u>3</u> in.	_		_in.	
Dominant Bank Vegeta											
Ulmus americana, Glyc	eria striata,	, Phalaris arundir	acea, C	noclea sensi	bilis						
A											,
Aquatic Habitats (ex: s overhanging banks/root	ubmerged o s, overhan	r emerged aquatic v ging alder branch	regetation ies	n, overnanging	banks/ro	oots, leaf pad	cks, large	submerged wood	i, riffles, d	deep pools	5):
Aquatic Organisms Observation Small fish 3-5 inches	served (li	st):									
T&E Species Observed	d (list):										
Disturbances for lives	ock access	manuro in water!	dy wast-	discharge sie	ve).						
Disturbances (ex: livest flows under two track di					:0).						
Waterbody is: (check one)	⊠ N	Vatural	□ Art	ificial, man-m	ade	☐ Manip	ulated				
Stream Quality a:			_								
(check one)	□⊦	ligh	\bowtie Mo	derate		☐ Low					

а	High Quality: Natural channel, natural vegetation extends at least one or two active channel widths on each side; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance by livestock or man.
	Moderate Quality: Altered channel evidenced by rip-rap; natural vegetation extends 1/3-1/2 of the active channel width on each side; filtering function or riparian vegetation only moderately compromised; banks moderately unstable; water color is cloudy, submerged objects covered with greenish film; moderate odor; minor barriers to fish movement; fair aquatic habitat; minimum disturbance by livestock or man.
	Low Quality: Channel is actively down cutting or widening; rip rap and channelization excessive; natural vegetation less than 1/3 of the active channel width on each side; lack of regeneration; filtering function severely compromised; banks unstable (eroding); water color is muddy and turbid; obvious pollutants (algal mats, surface scum, surface sheen); heavy odor; severe barriers to fish movement; little to no aquatic habitat; severe disturbance from livestock or man.
ı	Notes:
١	Naterbody Sketch (Include north arrow, centerline, distance from centerline, data point location, survey boundary, and IDs of associated features)

Waterbody ID:

sirw001







Linear Waterbody Data Sheet

Survey Description Project Name:	1	Waterbody Na	ne·		lw	aterbody ID:		Date:
		-		Datata Divar		•		
Line 5		Unnamed		Potato River		RV001p	T	09/18/2019
	County:		Company:			lember Initials		
Wisconsin	Iron		VHB		CS, C	C	3 (US,	DS, CS)
Tract Number(s):			Nearest Mile	post:		Associated W	` ,	
WI-IR-014.000			37.80			WIRV004, \	WIRV005	
Survey Type: (check one)	□Centerline	e □Re-F	Route	⊠Access Road		□Other:		
Physical Attributes Stream Classification:	3							
(check one)	□Ephemera	al □Inter	mittent	⊠Perennial				
Waterbody Type: (check one)	River ⊠ Str	eam 🗆 Dito	:h □ Ca	anal 🗆 Other:				
OHWM Width:	OHWM Indicat (check all that apply		⊠ Clear lin	e ⊠Shelvin	g	⊠Wrested vegetation	⊠Scourin	g □Water staining
Height: 2.5 ft. N/A□	⊠Bent, n vegetatio	natted, or missin n	g □Wrack lir	ne ⊠Litter ar debris	nd	□Abrupt plan community ch		haracteristic change
Width of Waterbody - To			Toe of Slope	Width of Waterbo	ody - W	ater Edge to	Depth of Wate	r:
Bank to Top of Bank:		of Slope:		Water Edge:	00.6		(Αρριοχ.)	_2 ft.
<u>20</u> ft.	-	<u>20 </u> ft.		N/A□	<u>20 </u> ft.		N/A□	<u></u>
Sinuosity: (check one)	Water (Approx.)	velocity:		Bank height			Bank slope	
□Straight	, , ,	_1_fps		Right:	2.5 ft.		Righ	t: <u>70</u> degrees
⊠Meanderin	g N/A□	po		Left:			Lef	t:
	1 1 1 1 1 1			-	<u>1.5</u> ft.			_90_ degrees
Qualitative Attribut	tes							
Water Appearance: (check one) □	No water ⊠0	Clear □Turb	-	een □Sui surface scu		□Algal [mats	□Other: Rip Rap)
	Bedrock □ Bo	oulder 🗵 Cobb	le 🗵 Grave	el 🗆 Sand 🛭	□ Silt/ c	lay 🛭 Organic	□ Other:	
(check all that apply) % of Substrate:	%%	% <u>45</u> %	<u>45</u> %	%		<u>%</u> <u>10</u> %	%	
Width of Riparian Zone	: Vegetative					(0)		
_>200_ft· N/A□	ľ	of Dominants:	□ Trees: in.		⊴ Saplin _ <u>2</u> _in.	ngs/Shrubs:	⊠ Herbs	
Dominant Bank Vegetat	tion (list):							
Verbena hastata, Al	nus incana, O	noclea sensik	oilis					
Aquatic Habitats (ex: su	bmerged or emerged	d aquatic vegetatio	n, overhanging l	banks/roots, leaf pac	ks, large	submerged wood	, riffles, deep poo	ls):
Overhanging roots,	deep pools, rif	fles						
Aquatic Organisms Obs	served (list):							
T&E Species Observed N/A	(list):							
Disturbances (ex: livesto N/A	ck access, manure i	n waterbody, waste	e discharge pipe	es):				
Tributary is: (check one)		□ Art	ificial, man-ma	ade 🗆 Manipi	ulated			
Stream Quality ^a : (check one)	⊠ High		derate	□ Low				

Waterbody ID: SIRV001p

^a **High Quality:** Natural channel, natural vegetation extends at least one or two active channel widths on each side; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance by livestock or man.

Moderate Quality: Altered channel evidenced by rip-rap; natural vegetation extends 1/3-1/2 of the active channel width on each side; filtering function or riparian vegetation only moderately compromised; banks moderately unstable; water color is cloudy, submerged objects covered with greenish film; moderate odor; minor barriers to fish movement; fair aquatic habitat; minimum disturbance by livestock or man.

Low Quality: Channel is actively down cutting or widening; rip rap and channelization excessive; natural vegetation less than 1/3 of the active channel width on each side; lack of regeneration; filtering function severely compromised; banks unstable (eroding); water color is muddy and turbid; obvious pollutants (algal mats, surface scum, surface sheen); heavy odor; severe barriers to fish movement; little to no aquatic habitat; severe disturbance from livestock or man.

Notes:

Signs of high flow during storm events (wrack lines above TOB). Stream widens, slows, and becomes deeper north of the access road. There is a small beaver lodge on the right bank of the stream just outside of the study area.

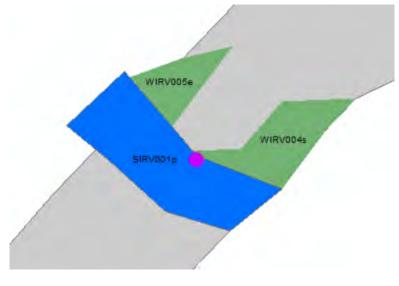
The stream is spanned by a wooden bridge as part of the access road.

Waterbody Sketch (Include north arrow, centerline, distance from centerline, data point location, survey boundary, and IDs of associated features)



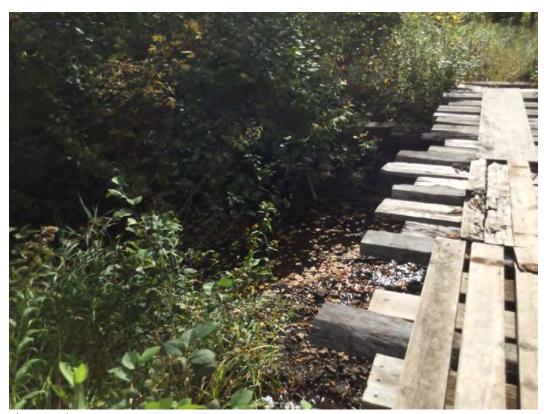


Scale - 1:4,500



Scale - 1:350

Linear Waterbody Point Photographs Line 5 Wetland Delineation September 18, 2019, Page 1 of 2



Photograph 1: SIRV001p, West, Across stream



Photograph 2: SIRV001p, South, Downstream

Linear Waterbody Point Photographs Line 5 Wetland Delineation September 18, 2019, Page 2 of 2



Photograph 3: SIRV001p, North, Upstream

Waterbody Date	a Silect										
Description											
Project Name:						Date:			Waterbody	/ Survey ID:	
Line 5 Relocation Pro	ject					2019-09-19			sira002p		
State:		County/	Parish:			USGS Water	body Name	•			
WI		Iron				Potato River					
Company:		Crew M	ember Init	ials:		Latitude:			Longitude:		
Enbridge		NTT/DG	S L			46.464627			-90.480702		
Survey Type: (check one)	✓ Centerl	ine	☐ Re-Ro	ute	□A	ccess Road	□Facility	□Other			
Waterbody Type: (check one)	☑ River		☐ Stream	1		Ditch	☐ Swale	☐ Canal		Other	
Water Appearance: (check one)	☐ No Wa	ter	☑ Clear		□Т	urbid	☐Sheen on Surface	□Surfac	e Scum 🛚	⊒Algal Mats	□Other
Existing Condition ^a : (check one)	☑ Highly	Function	nal Stream	□М	oderately	Functional S		☐ Functionally	Impaired St	ream	
Feature Description: (check one)	✓ Natural		☐ Artificia	al, man-ma	ade 🗆 N	Manipulated					
Flow Regime: (check one)	☐ Ephem	eral	☐ Intermi	ittent	Ø	Perennial	☐ Connect	ting			-
Sinuosity within Survey Corridor: (check one)	□ Straigh	t	☑ Meand	lering							
Description Notes: The waterbody is a pet the waterbody edge. I				-			Riffles and p	ools of water th	nroughout w	vith several gra	avel bars along
Measurements											
Depth of Water:	ft.	N/A□	Unknov	vn 🗹 W a	ter Edge	to Water Ed	ge: <u>40</u> ft.	N/A□	OHWM Wid	dth: <u>50</u> ft	<u>.</u>
OHWM Indicator:		ear line	on bonk	□ Sholvi	ing.	M/rooted v	actation	 ✓Scouring		□Water	ataining
OHWM Indicator: (check all that apply)				□Shelvi	•	✓ Wrested very limit to the second of t		-		□Water s	Ü
	miss	nt, matte ing vege		□Wrack		☑ Litter and o		✓ Abrupt plan change		change	aracteristic
Dominant Substrate: (check all that apply)	□ Ве	edrock	□ Воι	ulder		le 🗹 G	ravel	☐ Sand	 Silt/ cl	lay 🗆 (Organic
Observations											
Riparian Zone Preser	nt: 🗆 Ye	es	I	No							
Vegetation Layers:	☑ Tr	ees	v 9	Saplings/S	hrubs	☐ Herbs					
Dominant Bank Vege Acer saccharum, Abie	etation (list es balsame): a, Ulmus	s american	a.							
Aquatic Habitats (ex: Runs, riffles, pools, gr	submerged or avel bars,	emerged a and woo	quatic vegetat dy debris p	ion, overhand providing f	ging banks/ro nabitat for	oots, leaf packs, la aquatic invei	rge submerged w tebrates, am	ood, riffles, deep po phibians, and f	pols, etc.) : ish.		
Aquatic Organisms (None.	Observed ((list):									
Disturbances (ex: live Heavily eroded banks	stock acces . ATV trail	s, manure along riv	in waterboo er edge.	dy, waste di	scharge pi	pes):					
Observation Notes: None.											



sira002p_E (across)



sira002p_NE (upstream)



sira002p_SE (downstream)

Waterbody Data	Officet										
Description											
Project Name:						Date:			Waterbody S	Survey ID:	
Line 5 Relocation Proje	ct					2019-09-18			sird002p		
State:		County/	Parish:			USGS Wate	rbody Name	:			
WI		Iron				Potato River					
Company:		Crew Mo	ember Init	ials:		Latitude:			Longitude:		
Enbridge		AGG/O	ГG			46.466585			-90.481020		
Survey Type: [check one)	✓ Centerl	ine	☐ Re-Ro	ute		Access Road	□Facility	□Other			
Waterbody Type: (check one)	River		☐ Stream	1		Ditch	☐ Swale	☐ Canal		Other	
Water Appearance: [(check one)	☐ No Wa	ter	☑ Clear		□Т	urbid	☐Sheen on Surface	□Surfac	e Scum □A	Algal Mats □Other	
Existing Condition ^a : (check one)	✓ Highly	Function	al Stream	□N	loderately	/ Functional S	tream [☐ Functionally	Impaired Stre	am	
Feature Description: (check one)	✓ Natural		☐ Artificia	al, man-ma	ade 🗆 I	Manipulated					
Flow Regime: [check one)	☐ Ephem	eral	☐ Interm	ittent	V	Perennial	☐ Connection Connection	ting			
Sinuosity within Survey Corridor: (check one)	□ Straigh	t	✓ Meano	lering							
Measurements											
Depth of Water: 2	ft.	N/A□	Unknov	vn 🗆 Wa	ater Edge	to Water Ed	ge: 25 ft.	N/A□	OHWM Widt	h: <u>40</u> ft.	
OHWM Indicator: (check all that apply)	☑ CI	ear line	on bank	□Shelv	ing	□Wrested v	egetation	□Scouring		□Water staining	
(спеск ан шагарру)		nt, matte		□Wracl	k line	□Litter and	debris	□Abrupt plan	t community	☐Soil characteristic change	
Dominant Substrate: (check all that apply)	□Ве	edrock	□ Во	ulder	☑ Cobb	le 🗹 🤇	Gravel	☑ Sand	□ Silt/ clay	/ □ Organic	
Observations											
Riparian Zone Present	: □ Y€	es	اکا	No							
Vegetation Layers: (check all that apply)	☑ Tr	ees	V (Saplings/S	Shrubs	✓ Herbs					
Dominant Bank Vegeta Abies balsamea, Solida	ation <i>(list</i> ago gigan) : tea, Frax	tinus nigra	, Acer sac	charum, l	Matteuccia st	ruthiopteris.				
Aquatic Habitats (ex: su Pools, riffles and runs,	ibmerged or gravel ba	emerged ac	quatic vegetal	tion, overhan	ging banks/ro	oots, leaf packs, la	rge submerged w	vood, riffles, deep po	ools, etc.):		
Aquatic Organisms Ob Invertebrates, amphibia	oserved (ans, fish.	(list):									
Disturbances (ex: livest None.	ock acces	s, manure	in waterboo	dy, waste di	ischarge pi	pes):					
Observation Notes: The feature is a perenn	ial watert	oody that	t flows thro	ough wood	lland.						



sird002p_E (across)



sird002p_N (downstream)



sird002p_S (upstream)

valerbody bala 3	iicci										
Description											
Project Name:						Date:			Waterbody Survey ID:		
Line 5 Relocation Project					2019-09-18			sird001p			
State: Coun			ounty/Parish:			USGS Waterbody Name:					
WI Iron			ron			Potato River					
Company:	Crew Member Initials:				Latitude:			Longitude:			
Enbridge		AGG/OTG				46.468243			-90.481725		
Survey Type:	Centerlin	ne [☐ Re-Rou	ıte		Access Road	□Facility	□Other			
Waterbody Type:	River		☑ Stream			Ditch	☐ Swale	☐ Canal		Other	
Water Appearance: [check one]					□Т	Turbid □Sheen on □Sເ Surface		□Surfac	face Scum □Algal Mats □Other		
Existing Condition ^a : (check one)	Highly F	unctiona	al Stream	□Мс	derately	y Functional S	tream [☐ Functionally	Impaired Stre	eam	
Feature Description: 🗹 l	Natural		□ Artificia	l, man-ma	de 🗆 l	Manipulated					
Flow Regime:	Epheme	eral [☐ Intermi	ttent		Perennial	☐ Connect Swale	ting			
Sinuosity within Survey Corridor: (check one)	Corridor:			ering							
Perennial river (Potato Riv	ver) with	поочріа	iii lolegi (on both sid	C3 WIGH	in survey area.					
Measurements											
Depth of Water: 0.5 ft.	. N	I/A□	Unknow	/n□ Wat	er Edge	to Water Ed	ge: <u>35</u> ft.	N/A□	OHWM Widt	t h: <u>40</u> ft.	
OHWM Indicator: (check all that apply)	☑ Cle				ng	□Wrested vegetation □Scouring		□Scouring	□Water staining		
<u> </u>		☑Bent, matted, or ☐Wrack line nissing vegetation			line	□Litter and debris		□Abrupt plan	t community	☐Soil characteristic change	
Dominant Substrate: (check all that apply)	□ Bed	drock	□ Воι	ılder [☑ Cobb	le 🗹 G	ravel	☑ Sand	□ Silt/ cla	y 🗆 Organic	
Observations											
Riparian Zone Present:	☑ Yes	5	□ N	lo							
Vegetation Layers: (check all that apply)	☑ Tre	es	v s	Saplings/Sh	rubs	✓ Herbs					
Dominant Bank Vegetation (list): Fraxinus nigra, Acer saccharinum, Onoclea sensibilis, Matteuccia struthiopteris.											
Aquatic Habitats (ex: submerged or emerged aquatic vegetation, overhanging banks/roots, leaf packs, large submerged wood, riffles, deep pools, etc.): Gravel bars, riffles and runs, pools, litter and debris.											
Aquatic Organisms Observed (list): Amphibians, insects, fish.											
Disturbances (ex: livestock access, manure in waterbody, waste discharge pipes): None.											
Observation Notes: The feature is a perennial	waterbo	ody asso	ciated wit	h wetland v	wird0011	f.					



sird001p_E (upstream)



sird001p_N (across)



sird001p_W (downstream)

Traterboay Bat	4 011000											
Description												
Project Name:						I	Date:			Waterbody S	urvey ID:	
Line 5 Relocation Pro	ect					1	2019-09-19			sira003p		
State:		County	/Parish:			ļ	JSGS Water	body Name				
WI		Iron					Lawrence Cr	eek				
Company:		Crew M	ember Ini	tials:		L	_atitude:			Longitude:		
Enbridge		NTT/DO	GL				46.468637			-90.481369		
Survey Type: (check one)	☑ Centerl	ine	☐ Re-Ro	oute	[□Ac	cess Road	□Facility	□Other			
Waterbody Type:	□ River		✓ Stream	n		□ D	itch	☐ Swale	☐ Cana		Other	
Water Appearance: (check one)	☐ No Wat	ter	☑ Clear			□Tu	ırbid	☐Sheen on	□Surfac	e Scum 🗆 🗆	lgal Mats	Other
Existing Condition a: (check one)	□ Highly	Function	nal Stream) V	Moderat	tely	Functional S	Surface tream	Functionally	Impaired Strea	am	
Feature Description: (check one)	✓ Natural		☐ Artifici	al, man-	made [□M	lanipulated					
Flow Regime: (check one)	☐ Ephem	eral	☐ Interm	nittent	[V P	erennial	☐ Connect	ting			
Sinuosity within Survey Corridor: (check one)	☐ Straigh	t	✓ Mean	dering								
River. Freshwater alg	ae through	out with	large rock	s along	the banks	S.						
Measurements												
Depth of Water: 0.5	ft.	N/A□	Unkno	wn□	Water Ed	lge 1	to Water Edg	ge: <u>25</u> ft.	N/A□	OHWM Width	n: <u>30</u> ft.	
OHWM Indicator:	□ CI	ear line	on bank	☑ She	elving	[□Wrested ve	getation	Scouring		☑ Water stai	ning
(check all that apply)		nt, matte		□Wra	ack line	[☑ Litter and o	ebris	✓Abrupt plan change	t community	□Soil chara	cteristic
Dominant Substrate: (check all that apply)	□ Ве	edrock	□ Во	oulder	☑ Col	bble	: □ G	ravel	☐ Sand	坚 Silt/ clay	□ Org	janic
Observations												
Riparian Zone Preser (check one)	nt: 🗹 Ye	es		No								
Vegetation Layers: (check all that apply)	☑ Tr	ees	v	Saplings	s/Shrubs		✓ Herbs					
Dominant Bank Vege Fraxinus nigra, Acer s	etation (list accharum,) <u>:</u> Matteu	ccia struthi	iopteris,	Onoclea	sen	ısibilis, Equis	etum palustr	is.			
Aquatic Habitats (ex: Riffles, pools.	submerged or	emerged a	quatic vegeta	ation, overh	nanging bank	ks/roc	ots, leaf packs, la	rge submerged w	rood, riffles, deep p	ools, etc.):		
Aquatic Organisms (None.	Observed ((list):										
Disturbances (ex: live None.	stock access	s, manure	e in waterbo	dy, waste	e discharge	e pip	es):					
Observation Notes: Waterbody flows throu	ugh wetland	d wird00)1f.									



sira003p_E



sira003p_N



sira003p_W

Trate: Beay Bat	4 011000											
Description												
Project Name:						Date:				Waterb	ody Su	rvey ID:
Line 5 Relocation Pro	ect					2019-0	9-19			sird003	е	
State:		County/	Parish:			USGS	Wate	rbody Name) :	•		
WI		Iron				UNT to	Pota	to Creek				
Company:		Crew M	ember Ini	tials:		Latitud	le:			Longitu	ide:	
Enbridge		AGG/O	TG			46.469	9420			-90.482	615	
Survey Type: (check one)	✓ Centerl	ine	☐ Re-Ro	ute		Access I	Road	□Facility	□Oth	er		
Waterbody Type: (check one)	□ River		✓ Stream	n		Ditch		☐ Swale	☐ Cai	nal	□ 0	ther
Water Appearance: (check one)	✓ No War	ter	☐ Clear			Turbid		☐Sheen or Surface	n □Surf	face Scum	□Al	gal Mats □Other
Existing Condition ^a : (check one)	☐ Highly	Function	nal Stream	1	Moderate	ely Function	onal S		☐ Functional	ly Impaired	d Strea	m
Feature Description: (check one)	✓ Natural		☐ Artifici	al, man	-made 🗆	∃ Manipul	ated					
Flow Regime: (check one)	☑ Ephem	eral	☐ Interm			☐ Perenni	al	☐ Connection Connection	eting			
Sinuosity within Survey Corridor: (check one)	☐ Straigh	it	✓ Mean	dering								
Measurements												
Depth of Water:	ft.	N/A 🗹	Unkno	wn□	Water Ed	ge to Wat	er Ed	ge: ft.	. N/A	OHWM	Width:	: <u>2</u> ft.
OHWM Indicator:	☑ CI	ear line	on bank	□Sh	elving	□Wres	sted v	egetation	Scouring			□Water staining
(check all that apply)		ent, matte ing vege		□Wr	ack line	□Litte	r and o	debris	□Abrupt pl change	ant commu	unity	☐Soil characteristic change
Dominant Substrate: (check all that apply)	□В€	edrock	□ Во	ulder	□ Cob	ble		Gravel	□ Sand	⊻ Sil	t/ clay	□ Organic
Observations												
Riparian Zone Preser (check one)	nt: 🗆 Ye	es		No								
Vegetation Layers: (check all that apply)	☑ Tr	ees		Sapling	s/Shrubs		Herbs					
Dominant Bank Vege Acer saccharum, Abie												
Aquatic Habitats (ex: None.	submerged or	emerged a	quatic vegeta	ition, overh	hanging banks	s/roots, leaf p	oacks, la	rge submerged v	wood, riffles, dee	p pools, etc.):		
Aquatic Organisms (None.	Observed ((list):										
Disturbances (ex: live None.	stock acces	s, manure	in waterbo	dy, waste	e discharge	pipes):						
Observation Notes: No water present at ti	me of surv	ey.										



sird003e_N (upstream)



sird003e_NW (across)



sird003e_S (downstream)

APPENDIX F

Waterbody Data Sheets
Part 24 of 24

Waterbody Date	a Silect										
Description											
Project Name:						Date:			Waterbody	Survey ID:	
Line 5 Relocation Pro	ect					2019-09-20			sird004e		
State:		County/I	Parish:			USGS Wate	rbody Name	:			
WI		Iron				UNT to Vau	ghn Creek				
Company:		Crew Me	ember Init	tials:		Latitude:			Longitude:		
Enbridge		AGG/OT	ΓG			46.47809			-90.482805	5	
Survey Type: (check one)	✓ Centerl	ine	☐ Re-Ro	ute		Access Road	□Facility	□Other			
Waterbody Type: (check one)	☐ River		☑ Stream	n		Ditch	☐ Swale	☐ Cana		Other	
Water Appearance: (check one)	☑ No Wa	ter	☐ Clear			Turbid	☐Sheen on Surface	□Surfac	e Scum 🗆	∃Algal Mats	□Other
Existing Condition a: (check one)	☐ Highly	Function	al Stream	V	Moderately	y Functional S		☐ Functionally	Impaired Str	ream	
Feature Description:	✓ Natural		☐ Artificia	al, man-n	nade 🗆	Manipulated					
Flow Regime: (check one)	☑ Ephem	eral	☐ Interm	ittent		Perennial	☐ Connec	ting			
Sinuosity within Survey Corridor: (check one)	□ Straigh	t	✓ Meano	dering							
Measurements Depth of Water:	ft.	N/A Ľ	Unknov	wn 🗆 W	/ater Edge	e to Water Ed	ge: ft.	N/AI Y	OHWM Wid	dth: <u>3</u> ft	
OHWM Indicator: (check all that apply)	☑ CI	ear line c	on bank	□Shel	ving	□Wrested v	egetation	Scouring		□Water s	taining
		nt, matte ing veget		□Wra	ck line	□Litter and	debris	□Abrupt plan change	t community	y □Soil cha change	ıracteristic
Dominant Substrate: (check all that apply)	□Ве	edrock	□ Во	ulder	☐ Cobb	le 🗆 C	Gravel	☑ Sand	I Silt/ cla	ay □ C	Organic
Observations											
Riparian Zone Preser	nt: 🗹 Ye	es		No							
Vegetation Layers: (check all that apply)	☑ Tr	ees	V S	Saplings/	/Shrubs	☑ Herbs					
Dominant Bank Vege Carex scabrata, Betul	etation (list a alleghan): iensis, Os	smunda cl	laytonian	ıa.						
Aquatic Habitats (ex: None.	submerged or	emerged aq	quatic vegetal	tion, overha	nging banks/r	oots, leaf packs, la	irge submerged w	wood, riffles, deep p	ools, etc.):		
Aquatic Organisms (None.	Observed ((list):									
Disturbances (ex: live Culvert.	stock acces	s, manure	in waterboo	dy, waste o	discharge p	ipes):					
Observation Notes: The feature is an eph	emeral stre	am that f	flows throu	ugh wood	dland. The	feature flows	under a road	l through a culv	ert.		



sird004e_E (upstream)



sird004e_N (across)



sird004e_W (downstream)

valerbody Data	Officet									
Description										
Project Name:						Date:			Waterbody S	Survey ID:
Line 5 Relocation Proje	ect					2019-09-21			sird005e	
State:		County/	Parish:			USGS Wate	rbody Name	:		
WI		Iron				UNT to Vau	ghn Creek			
Company:		Crew Me	ember Init	tials:		Latitude:			Longitude:	
Enbridge		AGG/01	ΓG			46.480429			-90.484288	
Survey Type: [✓ Centerl	ine	☐ Re-Ro	ute		Access Road	□Facility	□Other		
Waterbody Type: [River		✓ Stream	า		Ditch	☐ Swale	☐ Canal		Other
Water Appearance: [☑ No Wa	ter	☐ Clear			Turbid	☐Sheen or Surface	n □Surfac	e Scum □A	Algal Mats □Other
Existing Condition a: (check one)	☐ Highly	Function	al Stream	☑ Mod	derately	y Functional S		☐ Functionally	Impaired Stre	am
Feature Description: [check one)	✓ Natural		☐ Artificia	al, man-mad	e 🗆	Manipulated				
Flow Regime: [check one)	E phem	eral	☐ Interm	ittent		Perennial	☐ Connec Swale	ting		
Sinuosity within Survey Corridor: (check one)	□ Straigh	t	✓ Meano	dering						
Ephemeral stream flow	ing tinou	gir a com	icious swi	amp (wildo i	O1).					
Measurements										
Depth of Water:	_ft.	N/A🗹	Unknov	wn□ Wate	r Edge	e to Water Ed	ge: ft.	N/A 🗹	OHWM Widt	h: <u>3</u> ft.
OHWM Indicator: (check all that apply)	☑ CI	ear line o	on bank	□Shelving	9	□Wrested v	egetation	Scouring		□Water staining
(оных ан тагарру)		nt, matte ing veget		□Wrack li	ne	□Litter and o	debris	□Abrupt plan change	t community	☐Soil characteristic change
Dominant Substrate: (check all that apply)	□ Ве	edrock	□ Во	ulder 🗆	Cobb	le □ G	Gravel	□ Sand	⊻ Silt/ clay	∕ □ Organic
Observations										
Riparian Zone Present	: V Ye	es		No						
Vegetation Layers: (check all that apply)	☑ Tr	ees	v (Saplings/Shr	ubs	☑ Herbs				
Dominant Bank Veget Tsuga canadensis, Bet	ation <i>(list</i> ula allegh): ianiensis	, Acer rub	rum, Athyriu	m filix-f	femina, Osmu	nda claytonia	ana.		
Aquatic Habitats (ex: su None.	ubmerged or	emerged ac	quatic vegetal	tion, overhangin	g banks/r	oots, leaf packs, la	rge submerged v	vood, riffles, deep po	ools, etc.):	
Aquatic Organisms Ol None.	bserved ((list):								
Disturbances (ex: lives None.	tock acces	s, manure	in waterboo	dy, waste disc	harge pi	ipes):				
Observation Notes: The feature is the outle	t for wetla	and wird()15f. The f	eature flows	throug	gh conifer fore	st.			



sird005e_N (downstream)



sird005e_S (upstream)



sird005e_W (across)

Trate: Beay Batt	4 011000												
Description													
Project Name:						Date:				Waterbo	dy Su	rvey ID:	
Line 5 Relocation Proj	ect					2019-09	-21			sird006e	•		
State:		County/I	Parish:			USGS W	aterbody	Name:					
WI		Iron				UNT to	√aughn Cr	eek					
Company:		Crew Me	ember Init	tials:		Latitude	:			Longitud	de:		
Enbridge		AGG/OT	ГG			46.4806				-90.4837	782		
Survey Type: (check one)	✓ Center	ine	☐ Re-Ro	ute		☐Access Ro	oad □Fa	cility	□Othe	r			
Waterbody Type: (check one)	□ River		✓ Stream	n		Ditch	□S	wale	☐ Can	al	□ Ot		
Water Appearance: (check one)	✓ No Wa	ter	☐ Clear			□Turbid	□Sh Surfa	een on	□Surfa	ace Scum	□Alg	gal Mats	□Other
Existing Condition ^a :	☐ Highly	Function	al Stream	V	Moderate	ely Functior			Functionall	y Impaired	Strean	n	
Feature Description: (check one)	✓ Natura		☐ Artificia	al, man-	-made [☐ Manipulat	ed						
Flow Regime: (check one)	☑ Ephem		☐ Interm			Perennia	□ C Swal	connecti e	ing				
Sinuosity within Survey Corridor: (check one)	□ Straigh	it	✓ Meano	dering									
Measurements													
Depth of Water:	ft.	N/A 🗹	Unknov	wn□	Water Ed	ge to Wate	r Edge:	ft.	N/A 🗹	OHWM \	Width:	_ 2	ft.
OHWM Indicator: (check all that apply)	Ľ C	lear line c	on bank	□Sh	elving	□Wreste	ed vegetat	ion	□Scouring	l .		□Wate	r staining
(споск ан так арруу)		ent, matte ing veget		□Wr	ack line	□Litter a	and debris		□Abrupt pla	ant commu		□Soil c change	haracteristic
Dominant Substrate: (check all that apply)		edrock	□ Во	ulder	□ Cok	oble	□ Gravel		□ Sand	☑ Silt/	/ clay] Organic
Observations													
Riparian Zone Preser	nt: 🗆 Ye	es	1	No									
Vegetation Layers: (check all that apply)	☑ Tr	ees		Sapling	s/Shrubs	☑ He	erbs						
Dominant Bank Vege Tsuga canadensis, Os	etation (list smunda cla) : aytoniana	i.										
Aquatic Habitats (ex: None.	submerged or	emerged aq	uatic vegetal	tion, overh	nanging bank	s/roots, leaf pa	cks, large subi	merged wo	ood, riffles, deep	pools, etc.):			
Aquatic Organisms (None.	Observed	(list):											
Disturbances (ex: live None.	stock acces	s, manure	in waterboo	dy, waste	e discharge	pipes):							
Observation Notes: This stream flows into	stream sir	d005e. T	he feature	e is an o	outlet of w	etland wird()15f.						



sird006e_E (upstream)



sird006e_N (across)



sird006e_W (downstream)

Open Waterbody Data Sheet

Open waterboo	iy Data	Snee	ι						
Description									
Project Name:					Date:			Waterbody St	urvey ID:
Line 5 Relocation Proj	ect				2019-09-23			oird001	
State:		County	/Parish:		USGS Wate	rbody Name	:	l.	
WI		Iron			None				
Company:		Crew N	lember Initials:		Latitude:			Longitude:	
Enbridge		AGG/N	IDL		46.483223			-90.484909	
Survey Type: (check one)	✓ Centerl	ine	☐ Re-Route		Access Road	□Facility	□Other		
Waterbody Type: (check one)	☐ Stock F	ond	☐ Natural Pond		Fishing Pond	☐ Lake	☑ Other		
Water Appearance: (check one)	☐ No Wa	ter	☐ Clear	Ø	Γurbid	☐Sheen or Surface	□Surfac	e Scum □Al	lgal Mats □Other
Feature Quality: (check one)	□ High		☐ Moderate		Low	<u> </u>			
Feature Description: (check one)	☐ Natural		Artificial, man-made	е 🗆	Manipulated				
Artificial pond located	within a cc	nifer sw	amp.						
Measurements									
Depth of Water: 1	ft.	N/A□	Unknown□						
OHWM Indicator: (check all that apply)	☑ CI	ear line	on bank ☐Shelving	9	□Wrested v	egetation	□Scouring		□Water staining
		nt, matt ing vege		ne	□Litter and	debris	□Abrupt plan change	t community	☐Soil characteristic change
Dominant Substrate: (check all that apply)	□ Ве	edrock	☐ Boulder ☐	Cobb	le 🗆 🤆	Gravel	□ Sand	 Silt/ clay	□ Organic
Observations									
Riparian Zone Preser (check one)	nt: 🗹 Ye	es	□ No						
Vegetation Layers: (check all that apply)	☑ Tr	ees	☐ Saplings/Shr	ubs	✓ Herbs				
Dominant Bank Vege Tsuga canadensis, Sc	tation (list irpus cype	rinus.							
Aquatic Habitats (ex: shallow open water.	submerged or	emerged a	aquatic vegetation, overhanging	g banks/ro	oots, leaf packs, la	rge submerged v	vood, riffles, deep p	ools, etc.):	
Aquatic Organisms C Insects.	bserved ((list):							
Disturbances (ex: live: None.	stock acces	s, manur	e in waterbody, waste disch	harge pi	ipes):				
Observation Notes: The feature is a man-r	nade holdi	ng pond	I located within wetland	wird01	19f.				



oird001_N



oird001_NW



oird001_W

Waterbody Data Sir	CCI							
Description								
Project Name:				Date:			Waterbody S	urvey ID:
Line 5 Relocation Project				2019-09-23			sird009p	
State:	County	//Parish:		USGS Wate	rbody Name:			
WI	Iron			UNT to Vau	ghn Creek			
Company:	Crew M	lember Initia	als:	Latitude:			Longitude:	
Enbridge	AGG/M	1DL		46.484273			-90.485652	
Survey Type: (check one)	enterline	☐ Re-Rou	te [□Access Road	□Facility	□Other		
Waterbody Type: ☐ Riv	/er	☑ Stream]	□ Ditch	☐ Swale	☐ Canal		Other
Water Appearance: No	Water	✓ Clear	[□Turbid	☐Sheen on Surface	□Surfac	e Scum □A	lgal Mats □Other
Existing Condition a: Hi	ghly Functio	nal Stream		tely Functional S		Functionally	Impaired Strea	am
Feature Description: Na (check one)	tural	☐ Artificial	, man-made [☐ Manipulated				
Flow Regime:	hemeral	☐ Intermit	tent [☑ Perennial	☐ Connect Swale	ing		
Sinuosity within Survey Corridor:	raight	✓ Meande	ering					
Measurements								
Depth of Water: 0.5 ft.	N/A□	Unknow	n□ Water Ed	lge to Water Ed	ge: 2 ft.	N/A□	OHWM Widtl	1: 2ft.
	Clear line	on bank	□Shelving	□Wrested v	egetation	□Scouring		□Water staining
	⊻ Bent, matt missing vege		□Wrack line	□Litter and o	debris	□Abrupt plan	t community	□Soil characteristic change
Dominant Substrate: (check all that apply)	Bedrock	☐ Boul	lder 🗆 Co	bble 🗆 C	Gravel	☑ Sand	 Silt/ clay	☐ Organic
Observations								
	⊻ Yes	□ N	0					
Vegetation Layers: [(check all that apply)	Trees	□ Sa	aplings/Shrubs	 Herbs				
Dominant Bank Vegetation Scirpus cyperinus, Phalaris	ı <i>(list)</i> : arundinacea	a, Typha sp.						
Aquatic Habitats (ex: submerg Pools, riffles, runs.		aquatic vegetatic	on, overhanging bank	ks/roots, leaf packs, la	rge submerged w	ood, riffles, deep po	ools, etc.):	
Aquatic Organisms Observ None.	ved (list):							
Disturbances (ex: livestock a Beaver dams, maintained po			/, waste discharge	e pipes):				
Observation Notes: The feature is a very narrow channel becomes wider due		•		•	•	ated swale. Th	nere are areas	where the stream



sird009p_E (upstream)



sird009p_S (across)



sird009p_W (downstream)

waterbody bata Si	icci								
Description									
Project Name:					Date:			Waterbody	Survey ID:
Line 5 Relocation Project					2019-09-21			sird008i	
State:	Cour	nty/Parish:			USGS Water	body Name	:		
WI	Iron				UNT to Vaug	hn Creek			
Company:	Crew	Member Ini	tials:		Latitude:			Longitude:	
Enbridge	AGG	/OTG			46.486513			-90.487393	
Survey Type:	enterline	☐ Re-Ro	ute	□A	ccess Road	□Facility	□Other		
Waterbody Type: ☐ R	liver	☑ Strean	n		Ditch	☐ Swale	☐ Canal		Other
Water Appearance: ☐ N (check one)	o Water	✓ Clear		ПТ	urbid	☐Sheen on Surface	□Surfac	e Scum 🗆	Algal Mats □Other
Existing Condition ^a :	lighly Funct	tional Stream	☐ Modera	ately	Functional S		Functionally	Impaired Stre	eam
Feature Description: V N	atural	☐ Artificia	al, man-made		Manipulated				
Flow Regime:	phemeral	✓ Interm	ittent	□ F	Perennial	☐ Connec	ting		
Sinuosity within Survey Corridor:	traight	✓ Mean	dering						
Small intermittent feature fl	owing unou	agn mesic ioi	6 51.						
Measurements									
Depth of Water: 0.1 ft.	N/A	Unknov	wn□ Water E	dge	to Water Ed	je: <u>1</u> ft.	N/A□	OHWM Wid	th: <u>3</u> ft.
OHWM Indicator: (check all that apply)	Clear lin	ne on bank	□Shelving		□Wrested ve	getation	□Scouring		□Water staining
(спеск ан так арруу)	☑Bent, many missing verification.		□Wrack line		□Litter and o	ebris	□Abrupt plan change	t community	☐Soil characteristic change
Dominant Substrate: (check all that apply)	☐ Bedrock	⟨ □ Во	ulder 🗆 C	obble	e □ G	ravel	☑ Sand	⊻ Silt/ cla	y 🗆 Organic
Observations									
Riparian Zone Present:	☐ Yes		No						
Vegetation Layers: (check all that apply)	✓ Trees		Saplings/Shrubs	S	✓ Herbs				
Dominant Bank Vegetatio Acer saccharum, Osmunda	n <i>(list)</i> : a claytonian	na.							
Aquatic Habitats (ex: subme None.	rged or emerge	ed aquatic vegeta	tion, overhanging ba	nks/ro	ots, leaf packs, la	ge submerged v	wood, riffles, deep po	ools, etc.):	
Aquatic Organisms Obse None.	rved (list):								
Disturbances (ex: livestock Culvert.	access, man	ure in waterbo	dy, waste discharç	ge pip	pes):				
Observation Notes: The feature flows through a	a heavily ind	cised channe	l and through a	culv	ert under a ra	ilroad track.			



sird008i_E (across)



sird008i_N (downstream)



sird008i_S (upstream)

Traterseay Batt	. 011000									
Description										
Project Name:						Date:			Waterbody St	ırvey ID:
Line 5 Relocation Proj	ect					2019-09-21			sird007i	
State:		County/	Parish:			USGS Wat	erbody Nam	e:		
WI		Iron				UNT to Va	ıghn Creek			
Company:		Crew M	ember Ini	tials:		Latitude:			Longitude:	
Enbridge		AGG/O	TG			46.486912			-90.487501	
Survey Type: (check one)	☑ Centerl	ine	☐ Re-Ro	ute		Access Road	□Facility	□Other		
,	□ River		☑ Strean	n		Ditch	□ Swale	☐ Cana		Other
Water Appearance: (check one)	☐ No Wat	ter	☑ Clear			Turbid	☐Sheen o Surface	n □Surfac	e Scum	gal Mats □Other
Existing Condition ^a :	☐ Highly	Function	nal Stream	ı 🗆	Moderate	ly Functional		Functionally	Impaired Strea	m
Feature Description: (check one)	✓ Natural		☐ Artificia			Manipulated				
Flow Regime: (check one)	□ Ephem		✓ Interm			Perennial	☐ Conne Swale	cting		
Sinuosity within Survey Corridor: (check one)	☐ Straigh	it	✓ Mean	dering						
Measurements										
Depth of Water: 0.1	ft.	N/A□	Unknov	wn 🗆 🛚 🕨	Nater Edg	je to Water E	dge : <u>1</u> f	t. N/A□	OHWM Width	: <u>2</u> ft.
OHWM Indicator: (check all that apply)	☑ CI	ear line	on bank	□She	elving	□Wrested	vegetation	□Scouring		□Water staining
(Check all that apply)		nt, matte		□Wra	ack line	□Litter and	debris	□Abrupt plan	t community	☐Soil characteristic change
Dominant Substrate: (check all that apply)	□ Ве	edrock	□ Во	ulder	☐ Cobl	ble 🗆	Gravel	௴ Sand	 Silt/ clay	☐ Organic
Observations										
Riparian Zone Preser (check one)	nt: 🗆 Ye	es		No						
Vegetation Layers: (check all that apply)	☑ Tr	ees	Ø :	Saplings	s/Shrubs	☐ Herb	S			
Dominant Bank Vege Acer saccharum, Betu										
Aquatic Habitats (ex: s	submerged or	emerged a	quatic vegeta	tion, overh	anging banks	/roots, leaf packs,	large submerged	wood, riffles, deep p	ools, etc.):	
Aquatic Organisms C None.	bserved ((list):								
Disturbances (ex: lives Berm.	stock acces	s, manure	in waterbo	dy, waste	discharge _l	pipes):				
Observation Notes: The feature runs along	g a man-m	ade berr	n to create	a railro	ad track. 1	Γhe feature te	rminates in si	ird008i.		



sird007i_E (upstream)



sird007i_S (across)



sird007i_W (downstream)

waterbody Data Sn	eet								
Description									
Project Name:					Date:			Waterbody Su	ırvey ID:
Line 5 Relocation Project					2019-09-21			sirb011p	
State:	Cou	nty/Parish:			USGS Water	body Name:			
WI	Iron				UNT to Vaug	hn Creek			
Company:	Crev	w Member Init	tials:		Latitude:			Longitude:	
Enbridge		_/SAM			46.488919			-90.488869	
Survey Type: 🗹 Ce	enterline	☐ Re-Ro	ute	□A	ccess Road	□Facility	□Other		
Waterbody Type: ☐ Ri	ver	☑ Stream	1		Ditch	☐ Swale	☐ Canal	□ C	Other
(check one)	o Water	☐ Clear			urbid	☐Sheen on Surface			gal Mats □Other
Existing Condition ^a : Hi	ighly Fund	ctional Stream	✓ Moder	ately	Functional S		☐ Functionally	Impaired Strea	m
Feature Description: (check one)	atural	☐ Artificia	al, man-made		Manipulated				
Flow Regime:	ohemeral	☐ Interm	ittent	V F	Perennial	☐ Connect Swale	ing		
Sinuosity within Survey Corridor: (check one)	raight	 Meand	lering						
Measurements									
Depth of Water: 0.25 ft.	N/A	Unknov	vn□ Water E	Edge	to Water Ed	ge: <u>1</u> ft.	N/A□	OHWM Width	: <u>3</u> ft.
OHWM Indicator: (check all that apply)	☐ Clear I	ine on bank	□Shelving		☑ Wrested ve	egetation	☑ Scouring		□Water staining
	☑ Bent, mmissing v		☑ Wrack line	:	☑ Litter and c	lebris	□Abrupt plan change	t community	☐Soil characteristic change
Dominant Substrate: (check all that apply)	□ Bedroo	ck □ Boo	ulder 🗹 C	Cobble	e 🗹 G	ravel	☐ Sand	☑ Silt/ clay	□ Organic
Observations									
Riparian Zone Present: (check one)	□ Yes	1	No						
Vegetation Layers: (check all that apply)	✓ Trees	v (Saplings/Shrub	s	✓ Herbs				
Dominant Bank Vegetation The feature runs through a intermedia, Phalaris arundir	mesic hai			·	etation includ	es Acer sacc	charum, Tilia ai	mericana, Ulmi	us americana, Dryopteris
Aquatic Habitats (ex: submer The feature currently has m					ots, leaf packs, la	rge submerged w	ood, riffles, deep po	ools, etc.):	
Aquatic Organisms Observing None.	ved (list):								
Disturbances (ex: livestock a The waterbody has severe	access, ma erosion in	nure in waterboo some areas w	dy, waste dischar vith incising pre	rge pip esent	pes): at points.				
Observation Notes: The feature has minimal rur communities.	nning wat	er at the time o	of survey. The I	banks	s form a steep	o hillslope. St	ream passes ti	hrough several	small wetland



sirb011p_N (downstream)



sirb011p_S (upstream)



sirb011p_SE (across)

Tratersea, Batt	. 011000										
Description											
Project Name:						Date:			Waterbody S	urvey ID:	
Line 5 Relocation Proj	ect					2019-09-27	,		sird013e		
State:		County/F	Parish:			USGS Wat	erbody Nam	e:			
WI		Iron				UNT to Va	ughn Creek				
Company:		Crew Me	ember Init	tials:		Latitude:			Longitude:		
Enbridge		AGG/ME)L			46.489029			-90.488645		
Survey Type: (check one)	☑ Centerl	ine	☐ Re-Ro	ute		Access Road	□Facility	□Other	•		
Waterbody Type: (check one)	□ River		☑ Stream	<u> </u>		Ditch	☐ Swale	☐ Cana	Ι □ (Other	
Water Appearance: (check one)	✓ No Wat	er	☐ Clear			Turbid	☐Sheen o	on □Surfac	ce Scum □A	lgal Mats	□Other
Existing Condition a: (check one)	□ Highly	Function	al Stream	V	Moderate	ly Functional		☐ Functionally	Impaired Strea	am	
Feature Description: (check one)						Manipulated					
Flow Regime: (check one)	☑ Ephem	eral	☐ Interm	ittent		Perennial	☐ Conne Swale	cting			
Sinuosity within Survey Corridor: (check one)	☐ Straigh	t	☑ Meand	dering							
Measurements											
Depth of Water:	_ft.	N/A 🗹	Unknov	wn□ W	Vater Edg	je to Water E	dge: f	t. N/A🗹	OHWM Width	n: <u>2</u>	ft.
OHWM Indicator: (check all that apply)	☑ CI	ear line o	n bank	□Shel	lving	□Wrested	vegetation	Scouring	l	□Water	staining
(oncore all anat apply)	⊻ Be missi	nt, matte	d, or ation	□Wra	ıck line	□Litter and	debris	□Abrupt plar change	t community	□Soil ch change	aracteristic
Dominant Substrate: (check all that apply)		edrock	□ Во	ulder	□ Cobl	ble 🗆	Gravel	□ Sand	坚 Silt/ clay		Organic
Observations											
Riparian Zone Preser	nt: 🗆 Ye	s	I	No							
Vegetation Layers: (check all that apply)	☑ Tr	ees		Saplings	/Shrubs	☑ Herb	S				
Dominant Bank Vege Tsuga canadensis, Os	tation (list smunda cla) : iytoniana	ı.								
Aquatic Habitats (ex: None.	submerged or	emerged aq	uatic vegetat	tion, overha	anging banks/	/roots, leaf packs,	large submerged	wood, riffles, deep p	ools, etc.):		
Aquatic Organisms O None.	bserved (list):									
Disturbances (ex: live None.	stock acces	s, manure	in waterboo	dy, waste	discharge p	pipes):					
Observation Notes: The feature is a heavi	ly incised e	phemera	al stream t	hat flows	s through	woodland and	d terminates	in a perennial w	aterbody to the	e west (sirt	



sird013e_E (upstream)



sird013e_N (across)



sird013e_W (downstream)

Tracorboay Bac	4 011000													
Description														
Project Name:						D	ate:				Waterbod	y Sur	vey ID:	
Line 5 Relocation Proj	ect					2	2019-09-26				sird011i			
State:		County	/Parish:			U	SGS Wate	rbody Nam	ne:					
WI		Iron				ι	JNT to Vau	ghn Creek						
Company:		Crew M	lember Ini	tials:		L	atitude:				Longitude	:		
Enbridge		AGG/M	IDL			4	6.489224				-90.48793	88		
Survey Type: (check one)	☑ Centerl	ine	☐ Re-Ro	oute		□Ac	cess Road	□Facility	[□Other				
Waterbody Type: (check one)	□ River		✓ Strean	n		☐ Dit	tch	☐ Swale	[☐ Cana		□ Oth	her	
Water Appearance: (check one)	☐ No Wat	er	☐ Clear			□Tur	rbid	☑Sheen o	on [□Surfac	e Scum	□Alga	al Mats	□Other
Existing Condition ^a : (check one)	☐ Highly	Function	nal Stream	n [Modera	tely F	unctional S	Surface Stream	□ Fund	tionally	Impaired S	tream	1	
Feature Description: (check one)	✓ Natural		☐ Artifici		ı-made	□ Ma	anipulated							
Flow Regime: (check one)	☐ Ephem	eral	✓ Interm	nittent		□ Pe	erennial	☐ Conne Swale	ecting					
Sinuosity within Survey Corridor: (check one)	□ Straigh	t	☑ Meand	dering				- Cwalo						
M easurements														
Depth of Water: 0.1	ft.	N/A□	Unknov	wn□	Water Ed	dge to	o Water Ed	ge : 2 f	ft.	N/A□	онwм w	idth:	8ff	t.
	7 0				<u> </u>		7144							
OHWM Indicator: (check all that apply)	 ✓Be	ent, matt			elving rack line		∃Wrested v ⊒Litter and	_		upt plan	t communi	ty [staining aracteristic
Dominant Substrate:		ing vege edrock		oulder	□ Cc	obble		Gravel	chang □ Sa	•	☑ Silt/ d		change □ (Organic
(check all that apply)												,		
Observations														
Riparian Zone Preser (check one)	nt: 🗆 Ye	es		No										
Vegetation Layers: (check all that apply)	☑ Tr	ees		Sapling	js/Shrubs	i	✓ Herbs							
Dominant Bank Vege Carex crinita, Carex in	itumescen	s, Dryop					•							
Aquatic Habitats (ex: Pools.	submerged or	emerged a	aquatic vegeta	ation, over	hanging ban	ks/root	s, leaf packs, la	arge submerged	d wood, riffl	es, deep p	ools, etc.):			
Aquatic Organisms C None.	bserved (list):												
Disturbances (ex: live Fence through channe	stock acces: el.	s, manure	e in waterbo	dy, wast	te discharg	e pipe	es):							
Observation Notes: The feature is a heavi	ly incised s	tream lo	ocated in a	deep v	/alley. The	e ban	ks leading	into the stre	eam char	nnel are	very steep			



sird011i_E (upstream)



sird011i_S (across)



sird011i_W (downstream)

Waterbody Data Si	1001												
Description													
Project Name:		Date:			Waterbody Survey ID:								
Line 5 Relocation Project					2019-09-26			sird012i					
State:	e: County/Parish:						USGS Waterbody Name:						
WI		UNT to Vaughn Creek											
Company:		Latitude:			Longitude:								
Enbridge	AGG/MDL							-90.488683					
Survey Type:	enterline	☐ Re-Ro	ute	ПΑ	ccess Road	□Facility	□Other						
Waterbody Type: ☐ R	iver	☑ Strean	n		Ditch	☐ Swale	☐ Canal		Other				
Water Appearance: ☐ N (check one)	o Water	☑ Clear		ПТ	urbid	☐Sheen on Surface	□Surfac	e Scum 🗆	Algal Mats □Other				
Existing Condition ^a :	lighly Fund	ctional Stream	✓ Modera	ately	Functional S		☐ Functionally	Impaired Stre	eam				
Feature Description: V N	atural	☐ Artificia	al, man-made		Manipulated								
Flow Regime:	phemeral	✓ Interm	ittent	□ F	Perennial	☐ Connect	ting						
Sinuosity within Survey Corridor:	traight	☑ Meand	dering										
Measurements													
Depth of Water: 0.1 ft.	N/A	Unknow	wn□ Water E	dge	to Water Ed	ge: <u>1</u> ft.	N/A□	OHWM Widt	t h: <u>4</u> f t.				
OHWM Indicator: (check all that apply)	Clear li	ne on bank	□Shelving		□Wrested ve	getation	□Scouring		□Water staining				
(опеск ан так аррту)	☑Bent, m missing ver miss		□Wrack line		□Litter and o	lebris	□Abrupt plan change	t community	☐Soil characteristic change				
Dominant Substrate: (check all that apply)	☐ Bedroc	k □ Bo	ulder 🗆 C	obbl	e □G	ravel	☐ Sand	坚 Silt/ cla	y 🗆 Organic				
Observations													
Riparian Zone Present: (check one)	☐ Yes	V	No										
Vegetation Layers: (check all that apply)	✓ Trees		Saplings/Shrub	S	✓ Herbs								
Dominant Bank Vegetatio Tsuga canadensis, Carex o	n (list): crinita.												
Aquatic Habitats (ex: submer None.		ed aquatic vegeta	tion, overhanging ba	nks/ro	oots, leaf packs, la	rge submerged w	ood, riffles, deep po	ools, etc.):					
Aquatic Organisms Obser None.	rved (list):												
Disturbances (ex: livestock Trash and litter in stream c	access, mar hannel. Ol	nure in waterbo d broken wate	dy, waste discharç er control structu	ge pip ures.	pes):								
Observation Notes: The feature is a seep-fed s	tream. The	e channel is h	eavily incised. A	Assoc	ciated with we	etland wird03	1e.						



sird012i_E (upstream)



sird012i_S (across)



sird012i_W (downstream)

Waterbody Date	a Silect												
Description													
Project Name:			Date:			Waterbody Survey ID:							
Line 5 Relocation Pro	ject					2019-09-27			sird014e				
State:	te: County/Parish:						USGS Waterbody Name:						
WI			UNT to Vaughn Creek										
Company: Crew Member Initials:						Latitude:			Longitude	:			
Enbridge	AGG/MDL					46.489706			-90.489016				
Survey Type: (check one)	✓ Centerl	ine	☐ Re-Ro	ute		Access Road	□Facility	□Other					
Waterbody Type: (check one)	☐ River		✓ Stream	า		Ditch	☐ Swale	☐ Canal		☐ Other			
Water Appearance: (check one)	✓ No War	ter	☐ Clear		□Т	⁻ urbid □Sheen on □Surface Scum □Algal Mats □Ot Surface							
Existing Condition ^a :	☐ Highly	Function	al Stream	☑Mo	oderately	y Functional S		☐ Functionally	Impaired St	tream			
Feature Description: (check one)	✓ Natural		☐ Artificia	al, man-ma	de 🗆 l	Manipulated							
Flow Regime: (check one)	E Ephem	eral	☐ Interm	ittent		Perennial	☐ Connec	ting					
Sinuosity within Survey Corridor: (check one)	☐ Straigh	t	✓ Meand	lering									
The feature connects	to a peren	nial strea	m outside	the survey	corridor	r.							
Measurements													
Depth of Water:	ft.	N/A 🗹	Unknov	_{wn} Wat	er Edge	to Water Ed	ge: ft.	N/A 🗹	OHWM Wi	idth: 2 1	ft.		
OHWM Indicator: (check all that apply)	□ Cl	ear line o	on bank	□Shelvir	ng	□Wrested v	egetation	□Scouring		□Water	staining		
		nt, matte ing veget		□Wrack	line	□Litter and o	debris	□Abrupt plan change	t communit	ty □Soil ch change	aracteristic		
Dominant Substrate: (check all that apply)	□Ве	edrock	□ Во	ulder	□ Cobb	le 🗆 G	Gravel	☑ Sand	☑ Silt/ c	lay 🗆	Organic		
Observations													
Riparian Zone Preser	nt: 🗆 Ye	es	<u> </u>	No									
Vegetation Layers:	☑ Tr	ees		Saplings/Sh	nrubs	☑ Herbs							
Dominant Bank Vege Tsuga canadensis, Di	etation (list): termedia											
Aquatic Habitats (ex: None.	submerged or	emerged ac	quatic vegetat	tion, overhangi	ng banks/ro	oots, leaf packs, la	rge submerged v	vood, riffles, deep po	ools, etc.):				
Aquatic Organisms (None.	Observed ((list):											
Disturbances (ex: live None.	stock acces	s, manure	in waterboo	dy, waste dis	charge pi	ipes):							
Observation Notes: The feature is a small	ephemera	l stream	located wi	ithin a large	e swale.								



sird014e_NE (upstream)



sird014e_S (across)



sird014e_SW (downstream)

Trace. Sea y Back	2 011000											
Description												
Project Name:						Date:			Waterbody Survey ID:			
Line 5 Relocation Proj	ect					2019-09-27			sird015e			
State: County/Parish:					USGS Waterbody Name:							
WI Iron						UNT to Vaughn Creek						
Company:	ompany: Crew Member Initials:					Latitude:			Longitude:			
Enbridge		AGG/M	DL			46.491858			-90.488854			
Survey Type: (check one)	☑ Centerle	ine	☐ Re-Ro	oute		Access Road	□Facility	□Other				
Waterbody Type: (check one)	□ River		✓ Stream	n		Ditch	☐ Swale	☐ Canal		Other		
Water Appearance: (check one)	☐ No Wa	No Water										
Existing Condition ^a :	☐ Highly	Function	nal Stream		Moderatel	y Functional S		☐ Functionally	Impaired Strea	m		
Feature Description: (check one)	✓ Natural		☐ Artifici	al, man-ı		Manipulated						
Flow Regime: (check one)	☑ Ephem	eral	☐ Interm	ittent		Perennial	☐ Connec Swale	ting				
Sinuosity within Survey Corridor: (check one)	□ Straigh	t	✓ Mean	dering								
Measurements												
Depth of Water: 0.1	ft.	N/A□	Unkno	wn 🗆 🛛 V	Vater Edge	e to Water Ed	ge: 1 ft.	N/A□	OHWM Width	: <u>2</u> ft.		
OHWM Indicator: (check all that apply)	☑ CI	ear line	on bank	□She	elving	□Wrested v	egetation	Scouring		□Water staining		
(Greek all that apply)	⊠ Be miss	nt, matte ing vege	ed, or tation	□Wra	ack line	□Litter and	debris	□Abrupt plan	t community	☐Soil characteristic change		
Dominant Substrate: (check all that apply)	□В€	edrock	□ Во	ulder	☐ Cobb	ole 🗆 (Gravel	☑ Sand	☑ Silt/ clay	□ Organic		
Observations												
Riparian Zone Preser	nt: 🗹 Ye	es		No								
Vegetation Layers: (check all that apply)	☑ Tr	ees		Saplings	/Shrubs	✓ Herbs						
Dominant Bank Vege Abies balsamea, Betu												
Aquatic Habitats (ex: Pools, riffles.	submerged or	emerged a	quatic vegeta	ition, overh	anging banks/r	roots, leaf packs, l	arge submerged v	vood, riffles, deep po	ools, etc.):			
Aquatic Organisms O None.)bserved ((list):										
Disturbances (ex: live None.	stock acces	s, manure	in waterbo	dy, waste	discharge p	ipes):						
Observation Notes: The feature flows thro	ugh a largo	e swale i	nto a wetl	and and	then conne	ects to Vaugh	n Creek.					



sird015e_E (across)



sird015e_N (downstream)



sird015e_S (upstream)

Water body Data Si	icci									
Description										
Project Name:		Date:			Waterbody Survey ID:					
Line 5 Relocation Project					2019-09-27			sird016p		
State:		USGS Waterbody Name:								
WI		Vaughn Creek								
Company: Crew Member Initials:					Latitude:			Longitude:		
Enbridge	AGG/MDL				46.492155			-90.487007		
Survey Type:	enterline	☐ Re-Ro	ute	□A	ccess Road	□Facility	□Other			
Waterbody Type: □ R	River	☑ Strear	n		Ditch	☐ Swale	☐ Canal		Other	
Water Appearance: ☐ N (check one)	lo Water	☑ Clear		ПΤ	urbid □Sheen on □Surface Scum □Algal Mats □Other Surface					
Existing Condition a:	lighly Fur	ctional Stream	Modera	ately	Functional S		☐ Functionally	Impaired Stre	eam	
Feature Description: V N	latural	☐ Artifici	al, man-made		Manipulated					
Flow Regime:	phemera	I □ Interm	ittent	V F	Perennial	☐ Connect	ting			
Sinuosity within Survey Corridor:	straight	✓ Mean	dering							
Measurements										
Depth of Water: 1 ft.	N/A	.□ Unkno	wn□ Water E	dge	to Water Ed	je: <u>6</u> ft.	N/A□	OHWM Wid	th: 9 ft.	
OHWM Indicator:	☑ Clear	line on bank	□Shelving		□Wrested ve	getation	□Scouring		□Water staining	
(check all that apply)		matted, or vegetation	□Wrack line		Litter and o	ebris	□Abrupt plan change	t community	☐Soil characteristic change	
Dominant Substrate: (check all that apply)	□ Bedro	ck □ Bo	ulder 🗹 C	obbl	e 🗹 G	ravel	☑ Sand	I Silt/ cla	y 🗆 Organic	
Observations										
Riparian Zone Present:	☐ Yes		No							
Vegetation Layers: (check all that apply)	✓ Trees		Saplings/Shrub	S	✓ Herbs					
Dominant Bank Vegetatio Tsuga canadensis, Betula	n <i>(list)</i> : alleghani	ensis, Dryopter	ris intermedia.							
Aquatic Habitats (ex: subme Pools, riffles, woody debris	erged or emer	ged aquatic vegeta	tion, overhanging ba	nks/ro	oots, leaf packs, la	rge submerged w	rood, riffles, deep po	ools, etc.):		
Aquatic Organisms Obse Amphibians.	rved (list)	:								
Disturbances (ex: livestock None.	access, ma	anure in waterbo	dy, waste discharç	ge pip	pes):					
Observation Notes: The feature is a perennial	waterbody	/ located withir	n forest. The fea	ture	has a lot of la	rge debris ar	nd downed log	s in the chan	nel.	



sird016p_NW (downstream)



sird016p_SE (upstream)



sird016p_SW (across)